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# ANNUAL SUMMARY

OF

BIRTHS, DEATHS, AND CAUSES OF DEATH

IN

LONDON

AND OTHER LARGE TOWNS,

WITH APPENDIX CONTAINING DR. FRANKLAND'S REPORT  
ON THE METROPOLITAN WATER SUPPLY,

1895.

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PUBLISHED BY THE AUTHORITY OF THE REGISTRAR GENERAL OF  
BIRTHS, DEATHS, AND MARRIAGES IN ENGLAND.

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# REGISTRATION LONDON.\*

**AREA.**—The Area of Registration London is 77,389 acres, or 121 square miles, including 2717 acres of tidal water and foreshore; this is equal to 31,319 hectares, or 313 square kilometres. The Area of London being 121 square miles is equal to a square of 11 miles to the side. The length of the streets and roads in the County of London, as returned in 1882, was more than 1600 miles; and, from that date to the end of 1895, a total length of 208 miles of new streets had been sanctioned.

**ELEVATION.**—The population of London resides at a mean elevation of 60 feet (18·2 metres) above approximate mean water at Liverpool; the elevation varying from 1 foot (0·3 metre) in Plumstead Marshes, to 441 feet (134·4 metres) at Hampstead, above approximate mean water at Liverpool.

**HOUSES.**—At the Census in 1891 there were within this area 544,977 inhabited houses, containing an average of 7·7 persons to a house, a slightly lower proportion than in 1871 and 1881.

**ANNUAL RATABLE VALUE.**—The Annual Ratable Value of Property within Registration London in 1891, as assessed in accordance with the Valuation (Metropolis) Act, 1869, was 32,932,967*l*.† (For Annual Ratable Value of Greater London in 1891, see Table 9.)

**DENSITY (1895).**—145 persons to a hectare; 58·8 to an acre; 37,646 to a square mile. (In these calculations no account is taken of tidal water and foreshore.)

**AVERAGE ANNUAL RATE OF INCREASE OF POPULATION**

1861-71.	1·015223
1871-81.	1·016141
1881-91.	1·009923

## 1895.

POPULATION . . . . .	{ Males . 2,076,113 }	PERSONS. 4,392,346
(Estimated to the middle of the year.)	{ Females . 2,316,233 }	
MARRIAGES . . . . .		37,593
PERSONS MARRIED . . . . .		75,186
ANNUAL RATE OF PERSONS MARRIED PER 1000 OF THE POPULATION		17·1
BIRTHS . . . . .	{ Males . 68,085 }	PERSONS. 133,715
	{ Females . 65,630 }	
ANNUAL RATE OF BIRTHS PER 1000 OF THE POPULATION . . . .		30·5
DEATHS . . . . .	{ Males . 44,184 }	PERSONS. 86,937
	{ Females . 42,753 }	
ANNUAL RATE OF MORTALITY PER 1000 . . . . .	{ Males . 21·3 }	PERSONS. 19·8
	{ Females . 18·5 }	
EXCESS OF REGISTERED BIRTHS OVER DEATHS . . . . .		46,778
ESTIMATED INCREASE OF POPULATION . . . . .		43,395

\* Registration London is co-extensive with the Administrative County of London except that the hamlet or civil parish of Penge is excluded from Registration London, although forming part of the County of London. The length of new streets and roads was supplied by the Clerk to the London County Council.

† This information is derived from a return of the Gross and Ratable Value of Property in the Metropolis issued by the London County Council.



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# ANNUAL SUMMARY.

## LONDON

### AND OTHER LARGE TOWNS,

1895.

*General Register Office, Somerset House,  
17th February 1896.*

#### The 33 Great Towns.

The estimated population of the thirty-three great towns of England and Wales in the middle of the year 1895 was 10,591,530. The births registered in the course of the 52 weeks ending 28th December 1895 numbered 330,896, and were in the proportion of 31·3 in a calendar year per 1000 of the estimated population. The deaths registered within the same period were 218,165 in number, and were equal to an annual rate of 20·7 per 1000 persons living.

The general death-rates in 1895, calculated without reference either to sex or to age, varied considerably in these great towns, ranging from the lowest, 14·5 in Croydon, to nearly double the rate, or 28·8, in Liverpool.

It has been pointed out, however, in previous Annual Summaries that, in consequence of the great differences between one town and another with respect to the age and sex constitution of their several populations, these recorded rates require correction before they can justly be used for purposes of comparison. In Table A. of the present Summary factors are given by the use of which this correction can be made for each town with approximate accuracy. Applying these factors we have the corrected rates, which are given in the fourth column of the appended table. In the fifth column the death-rate for all England and Wales has been taken as 1000, and the corrected rate in each town has been reduced to a figure comparable with that standard. The fifth column may be read as follows:—After making approximate correction for differences of age and sex constitution, the same number of lives that in the year 1895 gave 1000 deaths in England and Wales, gave 1193 in the thirty-three great English towns collectively, 806 in Croydon, 974 in Portsmouth, 985 in Derby, &c., 1528 in Manchester, 1541 in Salford, and 1707 in Liverpool.

TABLE A.—RECORDED and CORRECTED DEATH-RATES per 1000 Persons living in 33 Great Towns in 1895.

TOWNS, in the order of their Corrected Death-rates.	Standard Death-rate.*	Factor for Correction for Sex and Age Dis- tribution.†	Recorded Death-rate, 1895.	Corrected Death-rate, 1895.‡	Comparative Mortality Figure, 1895.§
Cols.	1.	2.	3.	4.	5.
England and Wales -	19·15	1·0000	18·71	18·71	1000
England and Wales, less the 33 Towns - }	19·45	0·9845	17·68	17·41	931
33 Towns - -	17·71	1·0813	20·65	22·33	1193
Croydon - - -	18·37	1·0424	14·47	15·08	806
Portsmouth - -	18·73	1·0224	17·83	18·23	974
Derby - - -	17·36	1·1031	16·70	18·42	985
Norwich - - -	19·99	0·9579	19·34	18·53	990
Leicester - - -	17·64	1·0855	17·24	18·71	1000
Bristol - - -	18·33	1·0447	18·06	18·87	1009
Brighton - - -	18·94	1·0110	18·88	19·09	1020
West Ham - - -	17·75	1·0788	17·87	19·28	1030
Plymouth - - -	19·70	0·9720	20·11	19·55	1045
Huddersfield - -	16·47	1·1627	16·88	19·63	1049
Swansea - - -	17·53	1·0924	18·27	19·96	1067
Cardiff - - -	17·16	1·1159	18·21	20·32	1086
Nottingham - - -	17·81	1·0752	19·02	20·45	1093
Gateshead - - -	17·83	1·0740	19·58	21·03	1124
London - - -	17·97	1·0656	19·85	21·15	1130
Birkenhead - - -	17·42	1·0993	19·53	21·47	1148
Halifax - - -	17·20	1·1133	19·29	21·48	1148
Hull - - -	18·23	1·0504	20·84	21·89	1170
Newcastle - - -	17·58	1·0892	20·48	22·31	1192
Birmingham - -	17·33	1·1050	20·28	22·41	1198
Leeds - - -	17·28	1·1082	20·49	22·71	1214
Bradford - - -	16·73	1·1446	19·85	22·72	1214
Sheffield - - -	17·22	1·1120	20·46	22·75	1216
Sunderland - - -	18·25	1·0493	21·79	22·86	1222
Oldham - - -	16·72	1·1453	21·97	25·16	1345
Wolverhampton -	18·30	1·0464	24·38	25·51	1363
Preston - - -	17·42	1·0993	23·89	26·26	1404
Burnley - - -	16·67	1·1487	23·38	26·86	1436
Bolton - - -	16·90	1·1331	23·96	27·15	1451
Blackburn - - -	17·05	1·1231	24·30	27·29	1459
Manchester - - -	16·90	1·1331	25·23	28·59	1528
Salford - - -	17·03	1·1244	25·65	28·84	1541
Liverpool - - -	17·26	1·1094	28·79	31·94	1707

\* The Standard Death-rate signifies the death-rate at all ages calculated on the hypothesis that the rates at each of twelve age-periods in each town were the same as in England and Wales during the ten years 1881-90, the Death-rate at all ages in England and Wales during that period having been 19·15 per 1,000.

† The Factor for Correction is the figure by which the Recorded Death-rate should be multiplied in order to correct for variations of sex and age distribution.

‡ The Corrected Death-rate is the Recorded Death-rate multiplied by the Factor for Correction.

§ The Comparative Mortality Figure represents the Corrected Death-rate in each town compared with the Recorded Death-rate at all ages in England and Wales in 1895, taken as 1000.



Particulars of the mortality during 1895 in the thirty-three great English towns are given in Tables 1 to 4.

*Infantile mortality.*—The 218,165 deaths at all ages include 60,254 deaths of infants during their first year of life. Infantile mortality, by which is meant the proportion of deaths under one year to births registered, was equal in the thirty-three great towns to 182 per 1000, as compared with an average rate in the ten preceding years of 164. Infantile mortality in these towns during 1895 exceeded that recorded during any of the ten preceding years. The lowest rates in 1895 were 134 in Croydon, 143 in Bristol, and 158 in Halifax and in Huddersfield; the highest were 236 in Blackburn, 242 in Burnley, and 248 in Preston.

The mortality from *diphtheria* and *diarrhœa* showed a considerable excess in 1895, whilst that from *small-pox*, *measles*, *scarlet fever*, *whooping-cough*, and "*fever*" was below the decennial average.

There were 120 deaths from *small-pox* last year, against 18, 120, 732, and 450 in the preceding four years. Of the 120 deaths in the year 1895, 55 occurred in London or in the Metropolitan Asylum Hospitals outside the Metropolis, 10 in West Ham, 22 in Oldham, 13 in Liverpool, 8 in Birmingham, 8 in Derby, 2 in Manchester, and one each in Bolton and in Preston. In proportion to population small-pox was considerably more fatal in Oldham than in any other of the thirty-three towns.

The mortality due to *measles* was equal to 0·53 per 1000, the average rate in the ten preceding years having been 0·62. Only one death from measles was recorded in Nottingham; in the other towns the lowest rates were 0·03 in Birkenhead, and 0·04 in Bristol. The highest rates were 1·03 in Salford, 1·04 in Bolton, and 2·54 in Blackburn.

*Scarlet fever* caused a mortality equal to 0·18 per 1000 as compared with a decennial average of 0·28. The lowest scarlet fever rates were 0·02 in Plymouth, and 0·04 in Croydon, Brighton, Portsmouth, and Preston; the highest rates were 0·29 in Liverpool, 0·32 in Manchester, 0·39 in Wolverhampton, and 0·47 in Salford.

The mortality ascribed to *diphtheria* was equal to 0·35 per 1000, and showed a slight decline from the high rates in the two preceding years, but considerably exceeded the average rate (0·25) in the ten years 1885–94. The lowest diphtheria rates were 0·04 in Nottingham, 0·06 in Derby and in Sunderland, and 0·07 in Blackburn and in Preston; the highest rates were 0·42 in Birkenhead, 0·43 in Burnley, 0·53 in London, 0·77 in West Ham, and 0·98 in Wolverhampton.

*Whooping-cough* accounted for a death-rate of 0·37 per 1000, which was below that recorded in any of the preceding ten years, during which period the rate had averaged 0·57 per 1000. The lowest rates in 1895 were 0·14 in Nottingham, and 0·20 in Bristol, Huddersfield, and Hull; the highest rates were 0·62 in Wolverhampton, 0·64 in Salford, 0·65 in Gateshead, and 0·74 in Liverpool.

The mortality from *continued fevers* was equal to 0·20, or 0·01 per 1000 below the decennial average rate. The lowest rates were 0·06 in Huddersfield, 0·08 in Plymouth, 0·09 in Bristol, and 0·10 in Cardiff; the highest rates were 0·37 in Liverpool, 0·39 in Birkenhead, 0·42 in Salford, 0·45 in Bolton, and 0·96 in Sunderland.

The mortality caused by *diarrhœa* was equal to 1·20 per 1000, and considerably exceeded the average rate (0·83) in the preceding ten years. The lowest rates



were 0·48 in Huddersfield, 0·52 in Plymouth, 0·56 in Croydon, and 0·58 in Halifax; the highest rates were 2·14 in Burnley and in Blackburn, 2·46 in Hull, and 2·58 in Preston.

The highest aggregate rates from the seven zymotic diseases above enumerated were 4·01 in Liverpool, 4·23 in Wolverhampton, 4·45 in Bolton, 4·96 in Salford, and 5·63 in Blackburn.

*Uncertified Causes of Death.*—Of the 218,165 registered deaths 3,281, or 1·5 per cent., were not certified. In London the proportion of uncertified deaths did not exceed 0·7 per cent., but in the 32 great towns it averaged 2·0 per cent. As had also been the case in the previous three years, no uncertified death was registered in Croydon. In other towns the lowest proportions of uncertified deaths were 0·3 in Plymouth, in Oldham, and in Bolton, 0·5 in Derby, and 0·6 in Wolverhampton and in Leeds; the highest proportions were 3·3 in Huddersfield, 3·6 in Preston, 4·0 in Hull, and 4·8 in Birmingham.

## LONDON.

### MARRIAGES.

The marriages in London during the year 1895 numbered 37,593, and the proportion of persons married was 17·1 per 1000 of the population. In the four preceding years the proportions had steadily declined, the rates having been 17·7, 17·4, 17·2, and 17·0 respectively.

### BIRTHS.

During the 52 weeks of the year 133,715 births were registered, which were equal to a rate of 30·5 per 1000. With the single exception of the previous year, when the rate was 30·1, this is the lowest London birth rate recorded. The natural increment of the population, by excess of births over deaths, was 46,778, the average increment in the preceding five years having been 44,800 per annum.

### DEATHS.

The deaths in the 52 weeks of 1895 numbered 86,937, and corresponded to a rate of 19·8 per 1000 of the population; the average rate in the previous ten years having been 20·1.

The 86,937 deaths include 1794 of Londoners which took place in metropolitan institutions outside the limits of Registration London, and also 1799 deaths of strangers who had been admitted into London Hospitals and Infirmaries from districts outside these boundaries. By excluding the deaths occurring in metropolitan institutions of persons ascertained to have been strangers the death-rate of London is reduced to 19·4 per 1000.

*Infantile Mortality.*—The deaths of persons at all ages include those of 22,173 infants under one year of age. These deaths are equal to a rate of 166 per 1000 births, against an average of 153 in the ten years 1885–94. After distribution of deaths in public institutions, infantile mortality was lowest (151) in the North group of sanitary areas, and highest (185) in the Central group (*see* Table I.).

*Causes of Death.*—The following Table shows, in a summary form, the amount of life saved and the amount lost in the year 1895, as compared with the preceding decennium, under each of the more important headings in the list of causes:—



TABLE B.—LONDON.—DIMINUTION OR EXCESS OF DEATHS IN 1895, COMPARED WITH THE AVERAGE ANNUAL DEATHS IN 1885-94, CORRECTED FOR INCREASE OF POPULATION.

CAUSE OF DEATH.	Diminution in 1895.	Excess in 1895.
Small-pox - - - - -	134	—
Measles - - - - -	112	—
Scarlet Fever - - - - -	228	—
Typhus - - - - -	8	—
Influenza - - - - -	—	1,361
Whooping-cough - - - - -	1259	—
Diphtheria - - - - -	—	611
Simple Fever - - - - -	33	—
Enteric Fever - - - - -	13	—
Diarrhœal Diseases - - - - -	—	615
Cancer - - - - -	—	391
Phthisis and other Tubercular Diseases - - - - -	660	—
Premature Birth - - - - -	—	241
Diseases of Nervous System - - - - -	1,080	—
Diseases of Circulatory System - - - - -	44	—
Diseases of Respiratory System - - - - -	790	—
Diseases of Urinary System - - - - -	17	—
Childbirth and Puerperal Fever - - - - -	111	—
Accident - - - - -	—	126
Homicide - - - - -	—	—
Suicide - - - - -	—	54
All other Causes - - - - -	173	—
	4,662	3,399
Balance of Diminution or Excess - - - - -	1,263	—

The net gain in life saved during the year was represented by 1263 lives. In other words, had the average death-rate in 1885-94 prevailed throughout the year 1895, 1263 lives would have been sacrificed in addition to those which were actually lost by death. Notwithstanding this life saving, however, the table shows excessive mortality under headings which have shown considerable excess for many successive years past. Thus, for example, there was an excess of 1361 deaths under the head of influenza, 611 under the head of diphtheria, 391 under the head of cancer, and 241 under the head of premature birth. In addition to these, there was also in 1895 an excess under the heads of accident and suicide, as compared with the corrected averages.

*Influenza.*—The deaths referred to influenza in the year 1895 were 2156 in number, of which not fewer than 1570 were registered between the middle of February and the end of March. The deaths in London from diseases of the respiratory organs in 1895 were 790 below the average; this average, however, includes the excessive mortality from such diseases in 1890-93. The following

table shows the registered deaths from influenza for each of the last six years in the several sanitary areas of London :—

TABLE C.—DEATHS FROM INFLUENZA registered in the METROPOLITAN SANITARY AREAS in the Six Years 1890 to 1895.

Sanitary Area.	1890.	1891.	1892.	1893.	1894.	1895.	Sanitary Area.	1890.	1891.	1892.	1893.	1894.	1895.
Paddington -	45	67	79	64	30	106	Shoreditch -	13	58	33	31	14	59
Kensington -	38	112	158	94	33	103	Bethnal Green -	22	102	56	41	13	29
Hammersmith -	11	34	57	28	11	48	Whitechapel -	4	49	52	33	13	16
Fulham -	12	57	43	43	14	60	St. George-in-the-East -	6	19	20	17	11	14
Chelsea -	18	62	73	31	29	57	Limehouse -	3	17	22	18	3	10
St. George Hanover Square.	33	48	79	25	18	60	Mile End Old Town -	9	53	41	38	17	44
St. Margaret and St. John Westminster -	8	21	19	20	11	20	Poplar -	9	77	42	35	16	35
St. James Westminster -	8	28	15	5	1	9	St. Saviour -	4	7	13	3	-	8
St. Marylebone	33	74	75	68	31	89	St. George-the-Martyr Southwark -	5	16	13	9	7	24
Hampstead -	8	46	31	53	21	50	Newington -	9	63	33	30	12	45
St. Pancras -	36	153	137	58	42	98	St. Olave -	1	9	14	4	3	7
Islington -	42	189	181	128	51	156	Bermondsey -	2	39	40	17	9	28
Stoke Newington	8	19	27	7	7	22	Rotherhithe -	1	24	29	9	6	10
Hackney -	22	113	84	66	37	112	Lambeth -	50	135	140	85	47	143
St. Giles -	6	28	24	16	23	32	Battersea -	26	54	91	44	32	88
St. Martin-in-the-Fields -	3	9	2	3	3	5	Wandsworth -	34	70	91	57	37	121
Strand -	4	9	6	3	1	6	Camberwell -	34	133	124	82	40	137
Holborn -	2	16	15	11	6	18	Greenwich -	13	105	61	64	27	107
Clerkenwell -	11	30	33	34	15	22	Lee -	6	27	34	12	9	49
St. Luke -	7	15	13	11	3	5	Lewisham (excluding Penge)	12	43	46	49	22	43
City of London	15	21	27	17	4	17	Woolwich -	2	19	12	9	5	12
							Plumstead -	9	48	31	35	8	16

In 12 of the 43 sanitary areas of the Metropolis the deaths referred to influenza in 1895 exceeded those recorded in any of the five preceding years—Paddington, St. George-the-Martyr Southwark, Wandsworth, and Lee showing the largest excess. Compared with the average in the five preceding years 1890-94, the excess in 1895 was 3 per cent. in the East group of sanitary areas, 18 in the Central, 43 in the North, 47 in the West, and not less than 65 per cent. in the South. Among the sanitary areas in the last-mentioned group the influenza deaths last year in St. George-the-Martyr Southwark, Lambeth, Wandsworth, Camberwell, Greenwich, and Lee exceeded the numbers recorded in these districts respectively in any one of the preceding five years.

The deaths from *small-pox* further fell to 55 last year, the deaths in the two preceding years having been 206 and 89. Of these, 16 were stated to be deaths of vaccinated, and 26 deaths of unvaccinated, persons, whilst with respect to the remaining 13 persons who died from small-pox, no information was obtainable as to their condition with regard to vaccination.

*Measles* was the assigned cause of 2633 deaths, a decline of 660 from the number registered in 1894. The measles death-rate was equal to 0.60 per 1000 as compared with 0.63, the decennial average rate.



*Scarlet fever* accounted for 829 deaths, showing a further decline from the numbers registered in the two preceding years, which had been 1596 and 962. The scarlet fever death-rate last year was equal to 0·19 per 1000, or 0·05 less than the average rate in the previous decennium. Of the 829 deaths, 571, or 69 per cent., took place in public institutions.

The deaths from *diphtheria* amounted to 2316, against 3265 and 2670 in the years 1893 and 1894 respectively. The diphtheria rate was equal to 0·53 per 1000, against a decennial average rate of 0·38. The deaths in 1895 from diphtheria and croup, taken together, numbered 2460. Although fewer by 376 than the number thus returned in 1894 these deaths were still 299 in excess of the average. The mortality from diphtheria was considerably greater in the East group of sanitary areas than in any other, being equal to 0·81 per 1000, the South group coming next with a rate of 0·51. The rates for the West, the Central, and the North groups were 0·48, 0·42, and 0·40 respectively.

The following Table shows the deaths from *diphtheria* for each of the last nine years in the several sanitary areas of London, after distribution of the deaths in public institutions:—

TABLE D.—DEATHS FROM DIPHTHERIA in the METROPOLITAN SANITARY AREAS in the NINE YEARS 1887 to 1895, after Distribution of deaths occurring in Public Institutions.

Sanitary Area.	Enumerated Population 1891.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.
Paddington . . . .	117,846	29	76	42	40	24	23	70	93	47
Kensington . . . .	166,308	40	91	111	84	28	34	83	77	90
Hammersmith . . . .	97,239	44	38	45	49	73	73	53	50	44
Fulham . . . . .	91,639	19	10	12	22	19	31	64	105	77
Chelsea . . . . .	96,253	19	14	24	56	16	39	52	52	57
St. George Hanover Square .	78,364	13	46	30	13	20	26	34	19	24
St. Margaret and St. John Westminster . . . .	55,774	25	37	28	9	11	44	14	26	21
St. James Westminster . . .	24,995	3	5	2	3	7	6	14	15	4
St. Marylebone . . . .	142,404	14	23	34	27	26	48	94	72	35
Hampstead . . . . .	68,416	13	16	8	21	13	27	38	20	14
St. Pancras . . . . .	234,379	62	72	62	132	71	107	201	118	131
Islington . . . . .	319,143	46	50	63	81	158	150	200	221	146
Stoke Newington . . . .	30,936	40	76	97	67	79	131	206	5	5
Hackney . . . . .	198,606								123	83
St. Giles . . . . .	39,782	23	11	17	10	12	21	22	14	13
St. Martin-in-the-Fields . .	14,616	5	3	2	1	4	12	8	6	7
Strand . . . . .	25,217	10	3	8	4	5	8	22	9	13
Holborn . . . . .	33,264	9	5	17	18	9	17	22	20	7
Clerkenwell . . . . .	66,216	17	26	24	19	23	28	76	34	34
St. Luke . . . . .	42,440	12	10	13	16	12	14	46	15	20
City of London . . . . .	38,320	5	11	12	11	13	24	11	6	8
Shoreditch . . . . .	124,009	27	32	69	58	65	44	137	75	58
Bethnal Green . . . . .	129,132	27	52	102	116	61	117	136	133	101
Whitechapel . . . . .	74,462	6	24	34	51	54	59	61	46	58
St. George-in-the-East . . .	45,795	15	15	43	30	19	33	62	51	50

Sanitary Area.	Enumerated Population 1891.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.
Limehouse - - - -	57,376	14	25	47	28	16	25	61	51	45
Mile End Old Town - -	107,592	22	20	53	44	37	81	80	81	111
Poplar - - - -	166,748	30	42	64	70	55	78	168	108	152
St. Saviour - - - -	27,177	8	13	12	5	11	6	17	20	13
St. George-the-Martyr, South- wark - - - -	59,712	12	23	20	14	18	26	45	49	17
Newington - - - -	115,804	27	18	55	32	44	38	93	61	52
St. Olave - - - -	12,723	2	4	1	4	5	3	7	3	4
Bermondsey - - - -	84,682	16	14	23	19	16	20	80	66	29
Rotherhithe - - - -	39,255	6	8	16	8	4	11	31	31	31
Lambeth - - - -	275,203	105	107	156	76	78	130	184	141	112
Battersea - - - -	150,558	51	27	33	40	70	54	167	116	92
Wandsworth - - - -	156,942		65	44	22	36	65	114	80	46
Camberwell - - - -	235,344	65	64	70	51	47	78	130	192	179
Greenwich - - - -	165,413	37	34	30	47	46	52	147	132	184
Lee* - - - -	36,103	8	5	5	5	3	6	20	21	11
Lewisham (excluding Penge) -	72,272	11	31	5	15	8	20	53	30	14
Woolwich - - - -	40,848	3	3	6	5	2	4	8	14	14
Plumstead* - - - -	52,436	11	19	13	14	6	38	65	36	36

*Note.*—The population and deaths in places such as the Charterhouse, Gray's Inn, &c., which are not comprised in any of the above sanitary areas (note f, Table 3, p.16, Vol. II., Census Report, 1891) are nevertheless included in the totals relating to the areas with which these places are connected for registration purposes.

\* See note to Table H. The figures for Lee and Plumstead for all the years relate to those sanitary areas as constituted on 25th March 1891.

The following Table shows the admissions into the Metropolitan Asylums Board Hospitals, the Highgate Small-pox Hospital, and the London Fever Hospital, together with the deaths therein, of small-pox, scarlet fever, diphtheria, and enteric fever patients during the ten years 1886–95:—

TABLE E.—LONDON.—ADMISSIONS AND DEATHS at the METROPOLITAN ASYLUMS BOARD HOSPITALS, the HIGHGATE SMALL-POX HOSPITAL, and the LONDON FEVER HOSPITAL, of Persons suffering from SMALL-POX, SCARLET FEVER, DIPHTHERIA, and ENTERIC FEVER, 1886–1895.

Years.	Small-pox.		Scarlet Fever.		Diphtheria.		Enteric Fever.	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
1886	115	24	2092	156	27	4	361	52
1887	59	3	6062	516	18	4	458	62
1888	66	8	4881	514	111	50	461	73
1889	7	—	4837	370	740	278	311	42
1890	25	4	6091	521	965	317	513	95
1891	67	8	5601	360	1330	399	759	108
1892	366	38	13,686	850	2021	534	430	65
1893	2546	190	15,312	918	2853	866	544	110
1894	1226	108	11,892	725	3691	1041	538	96
1895	971	65	11,809	601	3688	824	661	119



*Whooping-cough* caused 1483 deaths in London during 1895, corresponding to a rate of 0·34 per 1000 living. This is the lowest rate on record, the nearest approach to so low a rate having been 0·41 in 1893. The average rate in the ten years 1885–94 was 0·63.

*Enteric fever* was the registered cause of 614 deaths, *typhus* of 5, and *simple* or *ill-defined continued fever* of 10 deaths. Thus, to continued fevers in the aggregate (the “fever” of these summaries) 629 deaths were referred. These deaths were equal to a rate of 0·14 per 1000, or 0·02 less than the average fever rate in the ten years immediately preceding.

*Diarrhœa* was the cause of 3600 deaths, which were in the proportion of 0·83 per 1000 living. This rate was 0·15 per 1000 above the decennial average, and was higher than in any year since 1887.

Not a single death was referred either to *hydrophobia* or to *glanders* during the year.

To *phthisis* 7974 deaths were referred, the average number in the preceding ten years, corrected for increase of population, having been 3529. The mortality from *phthisis* in Registration London was equal to 1·77 per 1000 persons living, as compared with 1·69 in the previous year. After distribution of the deaths in public institutions, the rate was highest, 2·65, in the Central groups of sanitary areas, and next highest, 2·05, in the East group; the South, North, and West groups showing rates of 1·70, 1·63, and 1·55 per 1000 severally.

The deaths in London attributed to *violence* numbered 3407, as compared with 3226, the corrected average number. The deaths from *suicide* numbered 482, and were 54 in excess of the average. The deaths from *homicide* were 72 in number, and were within one of the corrected average. There were 3 executions during 1895.

Of the 2850 deaths from accident, 290 were caused by horses and vehicles in the streets, a number 16 above the corrected average. As mentioned in previous summaries, however, the deaths here specifically returned are probably far from representing the entire number actually caused by vehicles and horses in the streets.\*

The following table gives the numbers of deaths caused by the various descriptions of vehicles, the largest number, as usual, appearing under the heading “van, waggon, dray” :—

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\* Many deaths thus caused are registered under such indefinite headings as “fractures,” &c.

TABLE F.—LONDON.—DEATHS caused by HORSES and VEHICLES in the STREETS,  
1873-95.

Year.	Description of Vehicle, &c.								TOTAL.
	Horse, &c.	Carriage.	Omnibus.	Tram-car.	Cab.	Cart.	Van, wagon, dray.	Others, and not described.	
1873	13	10	12	17	28	56	79	2	217
1874	28	11	17	14	33	36	67	5	211
1875	11	15	18	9	39	55	82	2	231
1876	13	4	17	12	24	56	84	7	217
1877	16	13	13	4	26	56	97	2	227
1878	17	12	14	10	34	63	84	3	237
1879	16	13	17	18	36	57	74	5	236
1880	12	11	20	17	39	43	76	2	220
1881	13	14	21	23	31	58	88	4	252
1882	12	15	19	23	37	60	100	5	271
1883	6	12	16	25	57	45	57	4	222
1884	12	11	33	18	57	51	74	9	265
1885	12	20	14	11	55	55	89	10	266
1886	10	7	21	9	39	49	111	5	251
1887	13	7	18	19	51	49	85	9	251
1888	5	15	25	9	41	47	91	4	237
1889	15	10	29	12	52	40	83	13	254
1890	3	11	22	18	43	44	109	20	270
1891	9	10	18	12	35	38	111	11	244
1892	17	15	26	11	44	47	101	8	269
1893	21	7	28	16	42	48	109	33	304
1894	17	10	24	13	35	46	86	24	255
1895	12	12	34	12	34	43*	117	27	291*

\* Including one case in which a verdict of "Manslaughter" was returned.

Of the total deaths at all ages attributed to accident or negligence, 610 were those of infants under one year of age who had been suffocated in bed, the numbers so returned in the preceding four years having declined steadily from 603 to 508. Of the 72 deaths from homicide, not fewer than 33 were cases of infants under one year of age.



*Deaths in Workhouses, Hospitals, and Public Lunatic and Imbecile Asylums.*  
—Of the 86,937 deaths registered in 1895, 23,282, or 26·8 per cent., took place in public institutions. The per-centages in the several classes of institutions were as follow :—

13·5 per cent. in workhouses and workhouse infirmaries.

1·9 „ „ in Metropolitan Asylum Hospitals.

9·4 „ „ in other hospitals.

2·0 „ „ in public lunatic and imbecile asylums.

Thus, in London, about one in every 7 deaths occurred in a workhouse or workhouse infirmary, one in 53 in a Metropolitan Asylum Hospital, one in 11 in some other hospital, and one in 50 in a public lunatic or imbecile asylum.

TABLE G.—LONDON.—DEATHS in PUBLIC INSTITUTIONS and PROPORTION of PAUPERISM, 1886–95.

—	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.
Deaths in Public Institutions -	18,109	18,255	18,858	18,869	21,881	23,052	22,260	24,598	22,117	23,282
Metropolitan Asylum Board Hospitals (in and out of London) -	248	624	683	729	1,019	973	1,650	2,163	2,066	1,669
Other Hospitals -	6,769	6,972	7,093	7,054	7,717	8,008	7,686	8,794	7,903	8,182
Lunatic and Imbecile Asylums* -	1,384	1,374	1,479	1,583	1,882	1,598	1,686	1,621	1,737	1,776
Workhouses and Workhouse Infirmaries† -	9,708	9,235	9,603	9,503	11,263	12,473	11,238	12,020	10,411	11,655
Proportion of persons in receipt of Poor Law Relief, per 1000 population -										
In-door	13·6	13·9	14·1	14·0	13·7	13·5	13·7	14·2	14·5	14·8
Out-door	9·6	9·9	10·0	9·0	8·5	8·6	7·8	8·2	8·3	9·8

\* Including the City of London, London County, and Metropolitan Lunatic and Imbecile Asylums situated outside Registration London.

† Including the Strand Union Workhouse at Edmonton, and the Holborn Union Workhouse at Mitcham.

*Mortality in different parts of London.*—The distribution of the registered mortality in London is seriously affected by the hospitals and other public institutions. In order, therefore, to give the means for a fair comparison between one district, or one group of districts, and another, the following Table has been constructed, in which the deaths in public institutions have been distributed to the sanitary areas from which the deceased had been admitted, and certain other corrections have been made as explained in the footnote to the Table.

TABLE H.—DEATHS BELONGING TO THE SEVERAL SANITARY AREAS OF REGISTRATION LONDON registered in the 52 WEEKS OF THE YEAR 1895.

SANITARY AREAS.	Total Deaths from all Causes.	Deaths from Principal Zymotic Diseases.									Deaths from Pthisis.	Deaths of Infants under 1 Year of Age.	Deaths under 1 Year to 1000 Births registered.
		Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Simple and ill-defined Fever.	Diarrhoea.			
REGISTRATION LONDON	85,138	55	2,629	829	2,289	1,480	5	596	10	3,574	7,742	22,013	165
<b>West.</b>													
Paddington	2,107	-	19	14	47	20	-	13	-	94	163	488	164
Ke-sington	2,759	-	34	28	90	38	-	15	1	116	253	623	172
Hammersmith	1,810	1	27	17	44	43	-	12	-	81	160	483	166
Fulham	2,195	-	51	21	77	50	-	12	1	130	154	735	187
Chelsea	1,913	1	11	25	57	35	-	13	-	79	185	460	168
St. George Hanover Square	1,175	1	10	10	24	26	-	9	1	36	105	203	138
St. Margaret and St. John Westminster.	1,146	-	25	6	21	15	-	3	-	41	125	238	185
St. James Westminster	411	-	2	3	4	10	-	6	-	6	35	78	144
<b>North.</b>													
St. Marylebone	2,843	9	25	14	35	39	-	23	1	93	299	607	138
Hampstead	931	-	9	8	14	7	1	9	1	29	75	196	135
St. Pancras	4,778	1	228	52	131	94	-	30	-	205	428	1,239	174
Islington	5,753	1	141	67	146	79	1	30	2	219	532	1,411	143
Stoke Newington	471	-	7	1	5	5	-	4	-	17	87	94	116
Hackney	3,735	1	120	41	83	65	1	45	-	189	314	949	154
<b>Central.</b>													
St. Giles	859	2	13	6	13	13	-	2	-	28	127	179	160
St. Martin-in-the Fields	244	1	2	2	7	6	-	1	-	5	24	50	265
Strand	569	2	6	9	13	3	-	5	-	11	76	107	175
Holborn	810	-	45	6	7	8	-	-	-	24	98	174	212
Clerkenwell	1,491	-	93	17	34	41	1	11	-	53	159	399	192
St. Luke	1,226	-	106	5	20	21	-	6	-	66	113	351	184
City of London	720	-	15	4	8	3	-	13	-	12	51	87	157
<b>East.</b>													
Shoreditch	2,856	2	106	30	58	87	-	22	-	155	283	864	199
Bethnal Green	2,769	4	116	30	101	34	-	17	-	139	245	772	162
White-chapel	1,824	4	82	23	58	19	-	10	-	54	219	490	157
St. George-in-the-East	1,330	-	88	20	50	21	-	7	-	60	113	386	196
Lim-house	1,547	1	86	20	45	40	-	10	-	59	136	411	202
Mile End Old Town	2,436	1	113	26	111	42	-	17	-	114	132	694	165
Poplar	3,865	1	216	48	152	80	-	33	-	147	273	1,113	183
<b>South.</b>													
St. Saviour	677	-	17	6	13	13	-	1	-	26	84	170	205
St. George the-Martyr, South-wark.	1,524	-	49	14	17	38	-	7	-	69	186	434	198
Newington	2,872	4	132	16	52	71	-	15	1	110	263	852	201
St. Olave	314	-	3	-	4	7	-	2	-	15	32	88	206
Bermondsey	1,869	-	114	16	29	20	-	11	-	80	190	520	162
Rotherhithe	783	1	19	8	31	10	-	9	-	32	76	193	143
Lambeth	5,567	2	151	53	112	132	-	26	2	264	511	1,421	152
Battersea	2,872	1	98	30	92	53	1	22	-	145	247	930	177
Wandsworth	2,747	2	30	16	46	24	-	26	-	106	213	623	132
Camberwell	4,610	7	111	46	179	68	-	33	-	204	394	1,235	164
Greenwich	3,305	3	49	36	184	55	-	17	-	121	268	823	150
Lee	561	-	18	5	11	5	-	3	-	12	56	116	140
L. wisham (excluding Penge)	1,187	-	12	9	14	32	-	7	-	52	76	274	135
Woolwich	748	-	6	11	14	3	-	9	-	30	92	204	153
Plumstead	929	2	24	10	36	5	-	30	-	46	90	249	133

In the above Table all deaths of persons in, or on the way to, Hospitals and other Public Institutions, as well as those of persons under treatment in surgical homes, or dying by accident or otherwise in the streets, have been distributed, as far as practicable, to the sanitary areas in which the deceased had previously resided. The deaths of 1,794 London residents who died outside Registration London in the Strand Union Workhouse at Edmonton, the Holborn Union Workhouse at Mitcham, the City of London Lunatic Asylum at Stone, and the Metropolitan Hospitals and Asylums have been similarly distributed. In 1,799 cases the previous residence was outside Registration London, and these have been excluded from the Table.



Taking the figures in Table H as a basis, and assuming that the population of each of the five groups of Sanitary Areas has increased or decreased since 1891 at the same ratio as between the censuses of 1881 and 1891, the following results are obtained.

TABLE I.—LONDON.—BIRTH and DEATH-RATES in GROUPS of SANITARY AREAS during 1895; and the AVERAGE ANNUAL RATES in the ten Years 1885-1894.

GROUPS OF SANITARY AREAS.		PER 1000 PERSONS LIVING.													Deaths under 1 Year to 1000 Births registered.
		BIRTHS.	Deaths from												
			ALL CAUSES.	Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Simple and Ill-Defined Fever.	Diarrhoea.	Phthisis.	
REGISTRATION LONDON	1895 -	30·5	19·4	2·62	0·01	0·60	0·19	0·52	0·34	0·00	0·14	0·00	0·82	1·77	165
	1885-94 -	31·8	19·8	2·74	0·04	0·63	0·24	0·38	0·63	0·00	0·14	0·01	0·67	?	153
West Group	1895 -	25·6	17·8	2·07	0·00	0·24	0·16	0·48	0·31	-	0·11	0·00	0·77	1·55	170
	1885-94 -	27·1	18·4	2·39	0·02	0·54	0·18	0·36	0·52	0·00	0·12	0·01	0·64	?	156
North "	1895 -	28·9	18·0	2·26	0·01	0·51	0·18	0·40	0·28	0·00	0·14	0·00	0·74	1·63	151
	1885-94 -	30·1	18·6	2·48	0·04	0·56	0·20	0·37	0·57	0·00	0·14	0·01	0·59	?	145
Central "	1895 -	29·8	24·2	3·15	0·02	1·15	0·20	0·42	0·39	0·00	0·16	-	0·81	2·65	185
	1885-94 -	30·0	24·2	2·82	0·04	0·70	0·24	0·36	0·60	0·00	0·16	0·01	0·71	?	167
East "	1895 -	37·5	23·5	3·89	0·02	1·14	0·28	0·81	0·46	-	0·16	-	1·02	2·05	178
	1885-94 -	37·3	22·9	3·57	0·05	0·85	0·35	0·48	0·78	0·00	0·17	0·01	0·88	?	163
South "	1895 -	30·9	18·7	2·47	0·01	0·51	0·17	0·51	0·33	0·00	0·13	0·00	0·81	1·70	161
	1885-94 -	32·9	19·1	2·67	0·05	0·59	0·24	0·36	0·64	0·00	0·13	0·01	0·65	?	148

In this Table 0·00 indicates that the deaths were too few to give a rate of 0·005; when *no death* occurred, - is inserted.

*Note.*—The deaths in Metropolitan Hospitals and in other Metropolitan Institutions, whether situated within Registration London or outside its limits, have been distributed to the Sanitary Areas to which the deceased persons properly belonged. (See note to Table H.)

*Uncertified Causes of Death.*—Of the 86,937 deaths registered in London, 633, or 0·7 per cent., were uncertified, showing a further decline from the proportion in recent years.

**GREATER LONDON.**—The estimated population of Greater London, which is co-extensive with the Metropolitan and City Police Districts, was 6,048,555 in the middle of the year 1895, including 4,392,346 in Inner or Registration London, and 1,656,209 in the Outer Ring. The mortality among the population of the entire area was at the rate of 18·4 per 1000, the rates in the preceding three years having been 19·3, 19·7, and 16·5. In Inner, or Registration, London, the mortality was 19·8, while in the Outer Ring it was 14·5 only. Infantile mortality in Greater London was at the rate of 159 per 1,000 births, as compared with 150, 158, and 138 in the preceding three years. The proportions in Inner London and in the Outer Ring were 166 and 141 per 1000 births respectively.

## The Sixty-seven other Large Towns.

The 67 English and Welsh towns included in Table 5 contained a population estimated at 3,641,935 in the middle of the year 1895. The births registered in these towns during the year numbered 113,209, and were in the proportion of 31·1 per 1000 persons living, against 30·5 in the preceding year. The deaths registered during 1895 were 67,965, and corresponded to a rate of 18·7 per 1000 persons living, exceeding by 2·7 per 1000 the low rate recorded in 1894.

The death-rates in the several towns, calculated without reference either to sex or to age, varied considerably, ranging from 11·1 in Hornsey, 11·6 in Bournemouth, and 11·7 in Eastbourne, to 25·2 in Barnsley, 25·7 in Merthyr Tydfil, and 26·0 in Longton.

Particulars of the mortality during 1895 in the 67 towns here referred to are given in Tables 5 and 6.

*Infant mortality.*—The 67,965 deaths at all ages registered in the 67 towns included 19,940 of children under one year of age. Infant mortality, or the proportion of deaths under one year of age to registered births, was, therefore, equal to 176 per 1000. The rates in the several towns ranged from 121 in Hastings, 127 in West Derby, 128 in Hornsey, and 130 in Devonport, to 231 in Stockport, 232 in Merthyr Tydfil, and 240 in Longton.

There were 22 deaths from *small-pox* during last year in the 67 towns now under notice, the number in 1894 having been 77; of these 22 fatal cases, 8 occurred in Wigan, 4 in Aston Manor, 3 in Gloucester, 2 in Eastbourne, 2 in Bootle, and 1 each in Dudley, Walton-on-the-Hill, and South Shields.

The rate of mortality from *measles* in these large towns averaged 0·37 per 1000, the highest rates being 1·12 in Colchester, 1·21 in Darwen, 1·42 in Walthamstow, 1·44 in Barnsley, and 1·89 in Warrington.

The death-rate from *scarlet fever* was equal to 0·15 per 1000, the highest rates in the several towns being 0·40 in Chester, 0·41 in Middlesbrough, 0·45 in Barnsley, 0·58 in Stockton-on-Tees, and 0·66 in Rochdale.

The mortality from *diphtheria* averaged 0·23 per 1000, the highest rates being 0·46 in Chester, 0·55 in Walthamstow, 0·59 in Ipswich, 0·88 in Macclesfield, and 0·94 in Leyton.

The death-rate from *whooping-cough* was equal to 0·31 per 1000, the rates in the several towns ranging upwards to 0·81 in Wigan, 0·84 in Jarrow, 0·88 in South Shields, 0·91 in Stockton-on-Tees, and 1·23 in Worcester.

The mortality from "*fever*" averaged 0·21 per 1000 in the 67 towns, the highest rates being 0·41 in Longton, 0·44 in Bootle, 0·51 in Scarborough, 0·60 in Barnsley, and 0·75 in St. Helens.

The mean rate of mortality from *diarrhœa* was 1·12 per 1000, the highest rates being 2·16 in West Hartlepool, 2·23 in Grimsby, 2·28 in Stockton-on-Tees, 2·62 in Barnsley, and 2·71 in Ashton-under-Lyne.

The death-rates from these principal zymotic diseases in the aggregate averaged 2·40 per 1000 in the 67 towns, and ranged from 0·62 in Bath, 0·82 in Carlisle, 0·90 in Bournemouth, 0·91 in Southport, and 0·92 in Smethwick, to 3·63 in Stockport, 4·37 in Stockton-on-Tees, 4·57 in Ashton-under-Lyne, 4·79 in Warrington, and 5·85 in Barnsley.



## Edinburgh, Glasgow, and Dublin.

In Edinburgh the death-rate in 1895 was equal to 20·7 per 1000, against 19·8 in London. In Glasgow the rate was 23·5, and in Dublin it reached 27·9. *Small-pox* caused 17 deaths in Edinburgh, 23 in Glasgow, and 121 in Dublin. In Edinburgh the death-rate from *measles* was equal to 0·93 per 1000, and in Glasgow the death-rate from *whooping-cough* was equal to 0·89 per 1000.

## Colonial and Foreign Cities.

From Weekly and other Returns with which the Registrar-General is favoured by the Authorities of 39 of the principal Colonial and Foreign cities, with an estimated aggregate population of twenty-three and a half millions, it is found that the deaths last year in these cities collectively were equal to a rate of 23·6 per 1000 living.

In thirty-four European, American, and Australian cities, with an aggregate population of more than twenty-one millions, the rate was 22·3 per 1000. In these thirty-four cities the lowest death-rates were 13·1 in Sydney, 13·7 in Brisbane, 16·8 in St. Louis, 16·9 in Christiania, 17·0 in Stockholm, and 17·4 in Amsterdam; in the other cities the rates ranged upwards to 26·2 in Buenos Ayres, 27·5 in Breslau, 28·8 in St. Petersburg, 29·3 in New Orleans, 30·2 in Trieste, and 35·6 in Moscow. In Paris the rate was 21·3, in Berlin 19·4, and in Vienna 23·1, against 19·8 in London. *Small-pox* caused 277 deaths in Buenos Ayres, 84 in St. Petersburg, 73 in St. Louis, 57 in New Orleans, and 50 in Philadelphia. *Measles* was proportionately most fatal in Vienna, Rome, New York, and St. Louis; *scarlet fever* in St. Petersburg, Moscow, Berlin, Breslau, and Buenos Ayres; *diphtheria* in St. Petersburg, Moscow, Berlin, Dresden, Breslau, Munich, Trieste, Milan, and in most of the American cities from which returns are received; *whooping-cough* in Brisbane and Copenhagen; "*fever*" in St. Petersburg, Moscow, Rome, Milan, St. Louis, and New Orleans; and *diarrhæal diseases* (including *cholera*) in St. Petersburg, Moscow, Berlin, Dresden, Breslau, and Munich.

Among the three Indian cities the death-rate was equal to 30·4 per 1000 in Bombay, 35·5 in Calcutta, and 37·7 in Madras. *Small-pox* caused 1562 deaths in Calcutta, 271 in Bombay, and 3 in Madras; and *measles* caused 541 deaths in Bombay, 252 in Madras, and 89 in Calcutta. The mortality from *diarrhæal diseases* (including *cholera*) was excessive in Calcutta and in Madras.

In Cairo and Alexandria the death-rates were respectively 48·1 and 33·9 per 1000, these high rates being mainly attributable to excessive mortality from *diarrhæal diseases*, which caused nearly one-third of the total deaths in each of these cities.





TABLE 1.--33 Towns.—Population; Births, and Meteorology, in the 52 Weeks of 1895.

The DEATHS registered in the 52 Weeks include																								
CITIES AND BOROUGHES.	Cols.	Population, Estimated middle of 1895.*	Persons to an Acre.	BIRTHS.	DEATHS.	Deaths of			Deaths from								MEAN TEMPERATURE. (Inches).	RAIN- FALL (Inches).	CITIES AND BOROUGHES.					
						Infants under 1 Year of Age.	Persons aged 60 Years and upwards.	Principal Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Fever.	Diarrhoea.	Violence.								
																				Inquest Cases.	Deaths in Public Institutions.	Unrecorded Causes of Death.		
33 TOWNS.	-	10,591,530	35.3	330806	218165	60254	50100	29937	120	5624	1883	3735	3888	2115	12593	7809	15470	42147	3281	47.3	26.86	-	33 TOWNS.	
LONDON†	-	4,392,246	53.8	133715	86937	22173	21554	11544	55	2633	829	2316	1453	629	3000	3407	7516	23282	633	40.3	19.73	-	LONDON†	
WEST HAM	-	249,473	53.0	8541	4447	1436	833	805	10	297	45	192	57	65	269	132	215	440	119	47.8	20.67	-	WEST HAM.	
CROYDON	-	114,923	12.8	2896	1633	389	588	131	19	19	4	22	28	14	104	58	149	241	-	47.8	20.67	-	CROYDON.	
BRIGHTON	-	119,604	47.3	3057	2252	502	765	269	371	39	7	18	42	34	104	58	98	369	37	48.9	24.62	-	BRIGHTON.	
PORTSMOUTH	-	174,751	40.5	4868	3108	850	929	371	-	39	7	10	63	35	208	102	214	428	26	48.8	26.48	-	PORTSMOUTH.	
PLYMOUTH	-	2551	57.9	1787	1787	455	183	171	-	77	2	10	28	7	47	33	104	136	5	48.9	24.62	-	PLYMOUTH.	
BRISTOL	-	298,189	51.1	6579	4109	942	585	295	-	8	16	34	45	21	171	129	324	886	45	40.7	33.26	-	BRISTOL.	
CARDIFF	-	155,637	25.7	3231	2896	951	623	377	-	47	8	56	52	15	169	134	214	342	27	-	-	-	CARDIFF.	
SWANSEA	-	97,008	19.1	3231	1767	574	343	163	-	46	5	12	20	20	60	64	120	133	30	-	-	-	SWANSEA.	
WOLVERHAMPTON	-	85,780	24.3	3927	2086	659	465	362	-	41	33	84	53	17	134	56	123	282	13	45.4	22.18	-	WOLVERHAMPTON.	
BIRMINGHAM	-	496,751	39.1	16095	10048	2927	2209	1321	8	136	127	183	171	81	615	376	317	1846	480	-	45.4	22.18	-	BIRMINGHAM.
NORWICH	-	107,127	14.2	3398	2066	646	622	291	-	27	10	19	53	30	166	61	130	273	33	47.3	25.21	-	NORWICH.	
LEICESTER	-	193,859	22.6	5954	3333	1208	788	577	-	32	16	35	85	39	370	95	191	379	105	-	47.3	25.21	-	LEICESTER.
NOTTINGHAM	-	226,658	20.7	6718	4240	1275	1222	505	-	1	5	10	31	54	358	138	236	506	57	46.8	20.18	-	NOTTINGHAM.	
DERBY	-	100,272	29.1	2069	1670	467	433	195	8	7	8	6	21	18	127	59	161	220	8	-	-	-	-	DERBY.
BIRKENHEAD	-	107,469	30.8	3283	2093	571	483	252	-	3	16	45	41	42	105	65	158	239	22	-	-	-	-	BIRKENHEAD.
LIVERPOOL	-	503,967	36.7	18525	14469	3893	2635	2016	13	359	144	120	372	187	821	725	977	3152	439	47.2	25.78	-	-	LIVERPOOL.
BOLTON	-	119,337	50.6	3921	2852	850	637	530	1	124	93	16	67	53	246	80	180	284	9	-	-	-	-	BOLTON.
MANCHESTER	-	524,845	40.7	17624	12905	3586	2372	1950	2	509	169	108	250	39	813	451	973	2656	153	-	-	-	-	MANCHESTER.
SALFORD	-	208,253	40.3	7454	5397	1719	1031	631	2	213	97	62	133	88	438	161	251	812	123	-	-	-	-	SALFORD.
OLDHAM	-	141,079	29.8	3873	2091	734	687	393	22	98	15	26	64	36	132	75	179	346	45	-	-	-	-	OLDHAM.
BURNLEY	-	99,591	25.4	3189	2392	773	412	385	-	25	22	43	54	30	211	53	88	124	45	-	-	-	-	BURNLEY.
BLACKBURN	-	127,615	18.3	3800	2093	919	575	716	-	323	8	9	75	29	272	73	110	243	87	-	-	-	-	BLACKBURN.
PRESTON	-	112,638	27.5	3753	2684	932	577	425	1	47	4	8	50	22	291	69	81	225	97	-	-	-	-	PRESTON.
HUDDESFIELD	-	99,482	8.4	2150	1675	339	470	119	-	12	19	15	20	6	47	43	65	120	56	-	-	-	-	HUDDESFIELD.
HALEFAX	-	93,813	11.0	2193	1805	346	560	122	-	9	5	14	23	16	55	46	100	202	37	45.3	37.81	-	-	HALEFAX.
BRADFORD	-	226,384	21.0	5890	4482	1195	1120	595	-	18	25	20	106	40	357	109	261	509	46	46.9	31.90	-	-	BRADFORD.
LEEDS	-	395,546	18.3	9483	6483	2381	1364	1062	-	134	51	65	112	82	618	277	657	866	45	47.7	31.44	-	-	LEEDS.
SHEFFIELD	-	119,133	17.4	6994	4833	2345	1083	718	-	187	53	62	71	97	645	176	296	860	220	-	-	-	-	SHEFFIELD.
HULL	-	216,782	26.3	7392	4504	1517	1014	481	-	19	39	37	44	48	531	149	269	543	180	46.2	29.92	-	-	HULL.
SUNDERLAND	-	157,705	48.0	4419	3395	1010	603	481	-	9	11	8	63	33	258	97	209	356	36	-	-	-	-	SUNDERLAND.
GATESHEAD	-	95,571	30.6	3306	1872	616	370	251	-	28	14	19	62	15	113	54	146	116	15	-	-	-	-	GATESHEAD.
NEWCASTLE	-	207,021	38.5	6437	4220	1198	799	520	-	141	22	52	59	48	138	174	379	644	48	-	-	-	-	NEWCASTLE.

\* By "estimated" population is meant the number of persons who would be living if the mean rate of increase between 1881 and 1891 had been maintained since the latter date.

† Including deaths of Londoners in the Metropolitan Workhouses, Hospitals, and Lunatic Asylums situated outside Registration London, but excluding deaths of persons not belonging to London occurring in the Highbury Small-pox Hospital, in the London Fever Hospital, in the Middlesex County Lunatic Asylum at Wandsworth, and in the Metropolitan Asylums Board Hospitals within Registration London. The provincial towns have been similarly corrected.

TABLE 2.—33 Towns.—Birth-, and Death-rates, and Analysis of Mortality, in the 52 Weeks of 1895.

In this Table, 0·00 indicates that the deaths were too few to give a rate of 0·005; when no death occurred, — is inserted.

CITIES AND BOROUGHES.	ANNUAL RATES PER 1000 PERSONS LIVING.										DEATHS under 1 Year to 1000 Births.	ANNUAL DEATH-RATE per 1000 living.	PERCENTAGE to Total Deaths.			CITIES AND BOROUGHES.					
	Total Deaths.					Deaths from							Inquest Cases.	Deaths in Public Institutions.	Uncertified Cause of Death.						
	Births in 52 Weeks ending 25th Dec. 1895.	31st Dec. 1892.	30th Dec. 1893.	29th Dec. 1894.	28th Dec. 1895.	Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.							Whooping-cough.	Fever.	Diarrhoea.	Violence.	
Cols.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	Cols.
33 TOWNS	31·3	20·7	21·6	18·1	20·7	2·84	0·01	0·53	0·18	0·35	0·37	0·20	1·20	0·74	182	11·1	79·4	7·1	19·3	1·5	- 33 TOWNS.
LONDON*	30·5	20·6	21·3	17·8	19·8	2·64	0·01	0·60	0·19	0·53	0·34	0·14	0·83	0·78	166	10·8	76·8	8·6	28·8	0·7	LONDON*
WEST HAM	34·3	18·6	18·9	16·2	17·9	3·24	0·04	0·91	0·18	0·77	0·23	0·26	0·56	0·53	168	9·5	73·9	4·8	10·1	2·7	WEST HAM.
CROYDON	25·3	18·8	16·3	13·2	14·5	1·32	—	0·17	0·04	0·19	0·24	0·12	0·85	0·61	134	6·6	71·3	9·0	14·5	—	CROYDON.
BRIGHTON	27·6	19·2	18·4	16·4	18·9	1·75	—	0·22	0·04	0·15	0·36	0·10	1·20	0·49	164	9·3	74·1	4·4	16·4	1·6	BRIGHTON.
PORTSMOUTH	25·6	18·5	18·2	15·2	17·8	2·13	—	0·29	0·04	0·11	0·36	0·20	0·87	0·50	175	8·5	73·0	6·9	13·8	0·8	PORTSMOUTH.
PLYMOUTH	28·7	18·8	21·2	18·3	20·1	1·92	—	0·87	0·02	0·11	0·32	0·08	0·52	0·37	178	9·5	71·3	5·8	20·3	0·3	PLYMOUTH.
BRISTOL	28·9	19·5	18·9	17·8	18·1	1·30	—	0·04	0·07	0·15	0·20	0·08	0·75	0·57	143	9·0	80·8	7·9	20·3	1·1	BRISTOL.
CARDIFF	34·3	18·8	19·7	16·2	18·2	2·43	—	0·30	0·05	0·36	0·34	0·10	1·28	0·86	179	9·4	75·0	7·6	12·1	1·0	CARDIFF.
SWANSEA	33·4	20·4	19·6	17·0	18·3	1·68	—	0·48	0·05	0·12	0·21	0·21	0·61	0·66	178	9·6	80·7	6·8	7·5	1·1	SWANSEA.
WOLVERHAMPTON	35·4	21·5	23·3	20·7	24·4	4·23	—	0·48	0·39	0·98	0·62	0·20	1·56	0·65	218	12·4	86·2	5·9	13·5	0·6	WOLVERHAMPTON.
BIRMINGHAM	32·4	20·4	22·0	18·6	20·3	2·67	0·02	0·27	0·26	0·37	0·35	0·16	1·24	0·76	183	10·8	79·8	3·2	18·4	4·8	BIRMINGHAM.
NORWICH	31·8	20·0	19·3	18·7	19·3	2·72	—	0·25	0·09	0·18	0·50	0·24	1·46	0·57	190	8·5	64·6	6·3	13·2	1·6	NORWICH.
LEICESTER	30·8	18·2	20·0	14·7	17·2	2·98	—	0·17	0·08	0·14	0·44	0·20	1·91	0·49	203	7·6	70·2	5·7	11·4	3·2	LEICESTER.
NOTTINGHAM	29·7	18·7	18·5	17·2	19·0	2·23	—	0·00	0·23	0·04	0·14	0·24	1·58	0·61	190	8·8	81·8	5·5	13·9	1·3	NOTTINGHAM.
DERBY	29·1	18·3	18·2	15·0	16·7	1·95	0·08	0·07	0·08	0·06	0·21	0·18	1·27	0·59	191	8·4	76·2	9·6	13·2	0·5	DERBY.
BIRKENHEAD	30·7	19·6	20·5	18·1	19·5	2·35	—	0·03	0·15	0·42	0·38	0·39	0·98	0·61	174	10·6	82·6	7·5	11·4	1·1	BIRKENHEAD.
LIVERPOOL	35·9	24·7	27·3	23·8	28·8	4·01	0·03	0·71	0·29	0·74	0·74	0·37	1·63	1·44	210	17·2	98·7	6·8	11·8	3·0	LIVERPOOL.
BOLTON	32·9	22·8	24·1	18·8	24·0	4·45	0·01	1·04	0·19	0·13	0·56	0·45	2·07	0·67	212	13·5	89·4	6·6	10·0	0·3	BOLTON.
MANCHESTER	33·7	23·8	24·9	20·4	25·2	3·73	—	0·97	0·32	0·21	0·48	0·19	1·56	0·92	203	15·0	90·3	7·4	20·1	1·2	MANCHESTER.
SALFORD	33·9	24·6	24·1	21·6	25·6	4·96	—	1·03	0·47	0·30	0·64	0·42	2·10	0·78	231	14·4	85·3	5·3	15·2	2·3	SALFORD.
OLDHAM	27·5	22·0	21·0	18·6	22·0	2·79	0·16	0·70	0·11	0·18	0·38	0·18	1·08	0·53	190	12·9	94·3	5·8	11·2	0·3	OLDHAM.
BURLEY	32·1	20·4	21·9	18·7	23·4	3·88	—	0·25	0·22	0·43	0·34	0·30	2·14	0·53	242	12·4	91·8	3·8	5·3	1·9	BURLEY.
BLACKBURN	30·6	21·7	23·3	17·9	24·3	5·68	—	0·54	0·06	0·07	0·60	0·23	2·14	0·37	236	13·6	87·6	3·6	7·9	2·8	BLACKBURN.
PRESTON	33·4	24·1	26·4	20·8	23·9	3·77	0·01	0·42	0·04	0·07	0·45	0·20	2·58	0·61	248	11·4	89·6	3·0	8·4	3·6	PRESTON.
HUDDESFIELD	21·7	18·1	17·2	15·8	16·9	1·20	—	0·12	0·19	0·15	0·20	0·06	0·48	0·43	158	9·5	77·2	3·9	7·7	3·3	HUDDESFIELD.
HALIFAX	23·4	19·5	17·4	16·5	19·3	1·30	—	0·10	0·05	0·15	0·25	0·17	0·78	0·49	158	10·5	78·9	5·5	11·2	2·0	HALIFAX.
BRADFORD	26·1	18·0	21·0	17·0	19·9	2·51	—	0·08	0·13	0·09	0·47	0·18	1·58	0·48	203	10·5	87·6	5·8	11·4	1·0	BRADFORD.
LEEDS	31·6	19·8	22·3	17·9	20·5	2·69	—	0·34	0·13	0·16	0·28	0·21	1·57	0·70	191	10·8	84·5	8·1	10·7	0·6	LEEDS.
SHEFFIELD	34·9	20·8	22·3	17·8	20·8	3·17	—	0·55	0·18	0·15	0·21	0·38	1·88	0·51	197	10·5	77·0	4·2	12·3	3·1	SHEFFIELD.
HULL	34·2	19·6	21·8	17·4	20·8	3·32	—	0·69	0·18	0·17	0·20	0·22	2·45	0·69	205	10·0	77·6	4·6	12·0	4·0	HULL.
SUNDERLAND	35·1	20·9	22·5	20·8	21·8	3·50	—	0·07	0·08	0·06	0·46	0·08	1·87	0·71	189	11·8	77·3	7·0	12·0	1·2	SUNDERLAND.
GATESHEAD	34·6	18·9	19·3	17·7	19·6	2·63	—	0·20	0·15	0·20	0·65	0·18	1·18	0·56	186	10·1	75·2	7·8	6·2	0·8	GATESHEAD.
NEWCASTLE	31·2	19·7	21·0	18·3	20·5	2·62	—	0·65	0·11	0·25	0·29	0·23	0·96	0·84	186	11·8	74·9	9·0	15·2	1·1	NEWCASTLE.

\* See note (t) to Table 1.



TABLE 3.—33 Towns.—Death-rates per 1,000 living from All Causes, and from the Principal Zymotic Diseases, and Infant Mortality, in the Ten Years 1885-94, and in 1895.

In this Table 0·00 indicates that the deaths were too few to give a rate of 0·005; when no death occurred, — is inserted.

CITIES AND BOROUGH.	ALL CAUSES.		SMALL-POX.		MEASLES.		SCARLET FEVER.		DIPHTHERIA.		WHOOPING-COUGH.		FEVER.		DIARRHŒA.		DEATHS UNDER ONE YEAR TO 1000 BIRTHS.		CITIES AND BOROUGH.
	Ten years 1885-94.	1895.	Ten years 1885-94.	1895.	Ten years 1885-94.	1895.	Ten years 1885-94.	1895.	Ten years 1885-94.	1895.	Ten years 1885-94.	1895.	Ten years 1885-94.	1895.	Ten years 1885-94.	1895.	Ten years 1885-94.	1895.	
33 TOWNS.	20·9	20·7	0·05	0·01	0·62	0·53	0·28	0·18	0·25	0·35	0·57	0·87	0·21	0·20	0·83	1·20	164	182	33 TOWNS.
LONDON*	20·1	19·8	0·04	0·01	0·63	0·60	0·24	0·19	0·38	0·53	0·63	0·34	0·16	0·14	0·63	0·83	153	165	LONDON*
WEST HAM.	18·8	17·9	0·28	0·04	0·64	0·91	0·25	0·18	0·31	0·77	0·72	0·23	0·23	0·26	0·78	0·85	132	163	WEST HAM.
CROYDON.	14·8	14·5	0·05	—	0·43	0·17	0·07	0·04	0·19	0·15	0·24	0·24	0·10	0·12	0·48	0·56	121	134	CROYDON.
BRIGHTON.	17·8	18·9	0·00	—	0·37	0·22	0·08	0·04	0·10	0·15	0·38	0·35	0·12	0·12	0·63	0·87	148	164	BRIGHTON.
PRISMOUTH.	18·3	17·8	0·01	—	0·50	0·22	0·11	0·04	0·23	0·11	0·38	0·33	0·36	0·20	0·80	1·20	145	175	PRISMOUTH.
PLYMOUTH.	21·3	20·1	0·01	—	0·47	0·87	0·53	0·02	0·16	0·11	0·51	0·20	0·21	0·08	0·63	0·52	165	178	PLYMOUTH.
BRISTOL.	19·4	18·1	0·04	—	0·56	0·04	0·23	0·07	0·12	0·15	0·51	0·20	0·12	0·09	0·47	0·75	145	143	BRISTOL.
CARDIFF.	20·2	18·2	0·02	—	0·61	0·30	0·23	0·05	0·25	0·38	0·53	0·34	0·26	0·10	0·85	1·28	163	179	CARDIFF.
SWANSEA.	20·1	18·3	0·00	—	0·61	0·43	0·58	0·05	0·07	0·12	0·53	0·21	0·33	0·21	0·41	0·61	166	178	SWANSEA.
WOLVERHAMPTON.	21·8	24·4	0·01	—	0·50	0·48	0·35	0·39	0·12	0·98	0·44	0·62	0·19	0·20	1·06	1·56	175	218	WOLVERHAMPTON.
BIRMINGHAM.	20·6	20·3	0·06	0·02	0·52	0·27	0·18	0·23	0·13	0·37	0·58	0·35	0·18	0·16	1·06	1·24	171	183	BIRMINGHAM.
NORWICH.	19·7	19·3	—	—	0·33	0·25	0·4	0·03	0·20	0·18	0·43	0·50	0·33	0·24	0·88	1·43	170	190	NORWICH.
LEICESTER.	19·5	17·2	0·01	—	0·43	0·17	0·25	0·08	0·08	0·15	0·39	0·41	0·22	0·24	1·51	1·91	201	203	LEICESTER.
NOTTINGHAM.	19·7	19·0	0·01	—	0·47	0·00	0·17	0·23	0·06	0·04	0·31	0·14	0·30	0·24	0·93	1·58	158	190	NOTTINGHAM.
DERBY.	18·1	16·7	0·01	0·08	0·41	0·07	0·14	0·08	0·11	0·06	0·43	0·21	0·21	0·13	0·60	1·27	147	161	DERBY.
BIRKENHEAD.	20·0	19·5	0·01	—	0·48	0·03	0·28	0·15	0·14	0·42	0·51	0·38	0·30	0·39	0·72	0·98	160	174	BIRKENHEAD.
LIVERPOOL.	25·7	28·8	0·02	0·03	0·83	0·71	0·50	0·20	0·16	0·24	0·62	0·74	0·37	0·37	1·04	1·63	186	210	LIVERPOOL.
BOLTON.	29·4	29·9	0·01	0·01	0·73	1·07	0·20	0·19	0·11	0·13	0·60	0·50	0·25	0·43	1·16	2·07	174	212	BOLTON.
MANCHESTER.	35·7	34·9	0·03	0·00	0·80	0·73	0·38	0·32	0·25	0·21	0·65	0·43	0·25	0·19	1·62	2·56	162	203	MANCHESTER.
SALFORD.	25·6	25·6	0·01	—	0·86	1·03	0·55	0·47	0·37	0·30	0·72	0·63	0·42	0·42	1·83	2·10	180	231	SALFORD.
OLDHAM.	25·6	25·6	0·09	0·16	0·71	0·70	0·32	0·11	0·19	0·18	0·35	0·38	0·17	0·18	0·85	1·08	175	209	OLDHAM.
BURNLEY.	23·8	23·4	0·01	—	0·65	0·25	0·37	0·22	0·12	0·43	0·59	0·54	0·28	0·30	1·34	2·14	217	232	BURNLEY.
BLACKBURN.	25·9	24·3	0·02	—	0·86	2·54	0·51	0·06	0·03	0·07	0·57	0·39	0·28	0·23	1·15	2·14	237	236	BLACKBURN.
PRESTON.	25·2	23·9	0·05	0·01	0·81	0·42	0·34	0·04	0·16	0·07	0·65	0·45	0·41	0·23	2·58	2·58	229	243	PRESTON.
HUDDESFIELD.	19·8	16·9	0·00	—	0·59	0·12	0·25	0·19	0·13	0·15	0·39	0·20	0·13	0·05	0·31	0·48	163	158	HUDDESFIELD.
HALIFAX.	20·3	19·3	0·06	—	0·44	0·10	0·22	0·05	0·13	0·15	0·25	0·25	0·16	0·17	0·25	0·48	163	158	HALIFAX.
BRADFORD.	20·5	19·9	0·07	—	0·50	0·08	0·33	0·11	0·06	0·09	0·47	0·47	0·17	0·18	0·78	1·28	167	203	BRADFORD.
LEEDS.	21·1	20·5	0·01	—	0·56	0·34	0·30	0·13	0·08	0·16	0·44	0·25	0·22	0·21	1·03	1·57	174	191	LEEDS.
SHEFFIELD.	21·7	20·5	0·23	—	0·57	0·55	0·44	0·10	0·13	0·15	0·58	0·21	0·22	0·22	1·03	1·88	175	197	SHEFFIELD.
HULL.	19·8	20·8	0·02	—	0·43	0·09	0·13	0·18	0·08	0·17	0·38	0·20	0·22	0·22	1·04	2·40	163	205	HULL.
SUNDERLAND.	22·1	21·8	0·02	—	0·87	0·07	0·29	0·08	0·09	0·06	0·42	0·46	0·41	0·96	1·87	1·87	164	189	SUNDERLAND.
GATESHEAD.	20·6	19·6	0·00	—	0·60	0·29	0·23	0·15	0·10	0·20	0·51	0·65	0·24	0·16	1·12	1·18	161	186	GATESHEAD.
NEWCASTLE.	21·6	20·5	0·00	—	0·69	0·68	0·20	0·11	0·13	0·25	0·53	0·29	0·20	0·23	0·65	0·96	164	186	NEWCASTLE.

\* See note (†) to Table 1.

TABLE 2.—33 TOWNS.—MEAN TEMPERATURE at GREENWICH, and

Number of Week.	WEEK ENDING	MEAN TEMPERATURE AT GREENWICH.		ANNUAL RATE OF													
		Fahrenheit.	Centigrade.	THIRTY-THREE TOWNS.	LONDON.*	WEST HAM.	CROYDON.	BRIGHTON.	PORTSMOUTH.	PLYMOUTH.	BRISTOL.	CARDIFF.	SWANSEA.	WOLVERHAMPTON.	BIRMINGHAM.	NORWICH.	LEICESTER.
	YEAR .	° 49'3	° 9'61	20'7	19'8	17'9	14'5	18'9	17'8	20'1	18'1	18'2	18'3	24'4	20'3	19'3	17'2
	1st Quarter	35'2	1'78	25'2	26'0	20'6	20'4	28'8	23'5	26'2	24'5	22'4	22'2	28'2	23'5	20'4	18'3
	2nd "	55'1	12'83	17'8	16'7	15'6	12'4	16'5	14'4	19'4	16'4	15'2	15'3	20'8	18'1	17'5	15'1
	3rd "	62'3	16'83	20'2	18'6	19'1	12'8	16'0	17'5	16'7	14'4	17'7	15'4	26'1	18'7	21'0	19'0
	4th "	44'7	7'06	19'4	18'0	16'2	12'3	14'2	15'9	18'0	17'0	17'5	20'2	22'4	20'8	18'4	16'6
1	Jan. 5	34'3	1'28	18'9	17'4	17'1	18'1	24'0	20'3	14'6	21'0	14'1	23'7	24'3	20'7	19'0	17'2
2	" 12	29'8	-1'22	20'1	19'3	20'3	16'8	21'4	21'5	18'7	18'3	17'4	18'3	20'7	18'4	18'5	16'9
3	" 19	40'4	4'67	21'7	20'0	18'4	19'5	20'5	20'6	12'9	21'9	14'4	21'0	33'4	27'9	22'9	15'1
4	" 26	35'6	2'00	18'7	17'6	14'6	15'0	13'5	21'8	21'1	21'7	16'4	18'3	23'7	19'1	20'4	11'3
5	Feb. 2	26'9	-2'82	19'7	19'0	16'3	11'8	24'4	14'6	21'1	18'7	17'8	22'0	22'5	16'0	19'0	16'9
6	" 9	22'4	-5'33	20'7	21'0	15'0	18'1	16'6	19'7	24'0	16'7	22'4	21'0	23'7	22'3	22'9	14'5
7	" 16	26'0	-3'33	26'7	29'3	21'3	14'5	23'1	20'9	18'7	25'4	24'5	24'2	26'1	25'7	20'9	21'3
8	" 23	34'0	1'11	29'6	34'0	21'1	24'5	26'6	25'1	33'0	26'3	31'5	28'0	30'4	21'8	28'2	19'9
9	March 2	38'2	2'33	32'9	33'5	28'6	26'8	32'3	22'1	39'2	27'4	34'5	28'5	21'9	23'1	16'1	19'1
10	" 9	38'5	2'50	35'0	41'2	28'0	23'1	40'1	48'0	32'5	34'8	21'0	31'0	21'5	22'4	19'6	19'6
11	" 16	45'7	6'50	32'2	33'4	26'8	34'5	48'0	34'9	32'2	30'4	26'5	28'5	33'4	30'9	15'6	20'7
12	" 23	48'3	9'06	27'7	26'0	20'7	25'4	47'5	28'0	28'1	33'6	22'1	19'9	37'1	31'4	21'4	23'1
13	" 30	44'6	7'00	23'4	21'1	19'4	16'8	36'6	32'7	24'6	24'2	15'1	14'5	38'3	27'1	18'5	21'8
14	April 6	41'5	5'28	21'1	19'0	15'7	10'9	20'5	20'0	15'2	24'9	20'8	22'0	25'5	26'9	13'0	23'1
15	" 13	47'7	8'72	20'5	19'3	18'2	14'1	23'7	16'1	22'2	21'7	20'4	14'0	24'9	25'5	20'4	16'7
16	" 20	49'1	9'50	20'3	18'8	17'8	17'2	17'9	18'2	25'2	19'9	16'4	22'0	22'5	18'1	21'9	17'5
17	" 27	50'9	10'50	18'8	17'9	16'5	10'4	19'6	15'5	22'2	13'5	12'7	11'3	27'4	17'1	28'7	17'2
18	May 4	51'2	10'67	17'5	16'6	12'7	13'6	20'9	11'9	16'4	13'3	14'7	13'4	20'7	16'9	19'0	12'4
19	" 11	57'3	14'06	17'7	16'6	17'1	16'8	13'5	14'9	25'8	16'5	14'4	17'2	18'2	19'5	15'1	17'2
20	" 18	55'9	13'28	17'6	16'5	15'0	12'3	13'1	14'0	17'0	13'9	15'1	16'1	15'8	16'9	12'7	15'3
21	" 25	52'3	11'28	17'4	16'3	18'6	9'5	17'0	14'1	15'2	13'7	15'1	15'1	17'0	15'5	20'0	11'8
22	June 1	61'0	16'11	17'2	15'5	14'6	13'6	20'1	15'8	21'1	17'4	11'4	17'2	28'0	17'4	14'6	13'7
23	" 8	60'7	15'94	15'5	14'8	12'1	11'3	13'1	10'4	18'7	13'7	13'7	12'9	22'5	14'6	13'6	13'2
24	" 15	53'7	14'83	15'4	14'4	14'4	10'9	14'4	10'7	20'5	14'4	11'7	11'3	15'8	13'3	14'1	12'1
25	" 22	60'5	15'83	16'2	15'1	15'5	6'8	12'6	17'9	19'3	14'4	14'4	12'9	14'6	17'1	12'7	14'5
26	" 29	65'8	18'78	16'7	16'9	15'0	13'2	9'6	11'6	14'0	15'3	16'4	16'7	17'6	16'2	16'5	11'6
27	July 6	61'8	16'56	17'5	18'0	16'3	9'1	10'0	12'2	14'6	11'0	16'4	12'4	19'5	16'2	13'6	15'9
28	" 13	65'6	18'67	19'9	21'0	20'9	14'1	10'5	13'7	18'7	14'4	12'4	10'2	27'4	18'1	20'9	22'1
29	" 20	62'8	17'11	21'9	23'7	22'8	10'9	10'5	14'0	19'3	12'3	15'4	12'4	24'3	17'7	26'8	19'6
30	" 27	62'6	17'00	22'5	23'0	30'1	14'5	11'8	17'0	20'5	13'7	18'4	16'7	27'4	20'3	25'8	23'7
31	August 3	59'0	15'00	20'7	21'4	24'0	15'9	11'8	15'5	17'6	16'2	18'8	18'8	28'0	19'9	26'8	21'0
32	" 10	60'3	15'72	20'8	19'0	21'3	13'6	15'3	15'5	18'1	14'6	18'1	19'4	31'0	20'3	23'9	24'2
33	" 17	61'7	16'50	19'1	17'3	18'2	9'1	14'4	16'4	14'4	13'3	15'4	14'0	29'2	19'7	16'5	18'8
34	" 24	66'2	19'00	19'9	17'0	16'3	11'8	19'6	19'4	12'9	15'5	18'1	12'4	25'5	18'0	25'8	15'9
35	" 31	61'8	16'66	19'9	16'9	15'9	17'2	22'2	23'6	21'7	14'2	20'0	17'7	18'8	17'1	23'4	16'1
36	Sept. 7	65'1	18'39	19'9	16'1	12'5	13'2	16'6	22'1	11'1	15'3	16'1	12'4	37'1	16'6	21'9	17'5
37	" 14	60'7	16'94	19'3	15'4	15'0	13'6	20'9	19'7	11'7	13'9	20'0	15'1	21'3	19'8	13'1	16'9
38	" 21	56'9	13'83	19'8	16'0	14'8	9'1	22'2	12'3	16'0	17'1	17'7	23'7	20'2	17'5	19'4	19'4
39	" 28	65'6	18'67	21'0	18'2	19'4	15'0	22'2	16'1	25'2	16'5	20'8	21'0	26'7	21'2	17'0	16'1
40	October 5	56'5	13'61	19'4	15'9	17'1	13'2	14'4	19'1	18'7	18'5	20'4	20'4	19'5	22'0	16'5	15'6
41	" 12	50'7	10'39	21'0	17'0	13'4	8'6	22'7	17'6	15'8	16'7	19'8	24'2	23'0	22'4	13'6	19'1
42	" 19	49'4	9'67	19'1	18'0	17'8	13'6	15'3	17'9	19'3	15'8	19'1	24'7	20'1	20'8	22'4	16'4
43	" 26	40'4	4'67	19'7	17'5	16'5	12'7	13'5	17'9	19'3	15'5	16'4	24'2	18'2	20'5	25'3	15'9
44	Nov. 2	39'9	4'39	21'9	21'2	19'9	12'3	17'4	17'3	18'7	19'0	20'8	19'4	21'3	20'6	19'0	18'3
45	" 9	50'8	10'44	22'1	21'2	17'1	13'2	17'4	17'0	26'3	17'6	20'8	19'4	33'4	21'1	19'5	15'9
46	" 16	50'4	10'22	19'0	17'9	15'0	12'2	14'9	14'6	19'4	18'4	22'0	23'7	20'2	15'6	18'2	18'2
47	" 23	45'5	7'50	19'0	17'7	16'3	13'2	12'6	16'7	18'1	14'9	13'1	22'6	23'1	19'8	13'1	16'1
48	" 30	43'4	6'33	17'9	17'3	17'1	11'3	12'2	12'5	18'7	18'7	14'7	17'7	20'7	19'5	14'1	14'3
49	Dec. 7	44'2	6'78	17'9	17'3	15'7	10'0	11'3	15'5	15'2	17'6	14'1	16'1	20'7	18'4	19'0	15'3
50	" 14	39'5	4'17	17'8	17'5	15'5	10'9	11'3	12'2	14'6	14'4	16'8	15'1	14'0	20'0	20'4	13'5
51	" 21	38'7	3'72	18'6	18'1	15'5	13'6	11'8	12'5	16'4	13'9	15'1	17'7	23'1	23'0	21'4	19'9
52	" 28	34'7	1'50	19'1	17'8	13'8	12'3	12'2	15'8	18'1	19'4	12'1	19'4	25'5	22'7	19'5	22'1

\* See note (†) to Table 1.



Annual Rate of Mortality in each Town, in each Week of 1895.

MORTALITY PER 1000 IN

NOTTINGHAM.	DERBY.	BIRKENHEAD.	LIVERPOOL.	BOLTON.	MANCHESTER.	SALFORD.	OLDHAM.	BURTON.	BLACKBURN.	PRESTON.	HUDDERSFIELD.	HALIFAX.	BRADFORD.	LEEDS.	SHEFFIELD.	HULL.	SUNDERLAND.	GATESHEAD.	NEWCASTLE.	Number of Week.
19.0	16.7	19.5	28.8	24.0	25.2	25.6	22.0	23.4	24.3	23.9	16.9	19.3	19.9	20.5	20.5	20.8	21.8	19.6	20.5	
24.9	18.8	23.1	34.1	26.2	27.5	26.1	25.8	24.3	21.9	27.9	22.5	25.1	23.4	24.7	22.5	20.8	22.9	21.9	23.5	
15.2	15.6	17.7	24.4	23.1	23.9	21.6	19.9	22.4	20.4	21.8	15.4	18.3	16.1	17.4	17.2	17.9	17.9	17.0	18.3	
18.4	16.8	18.3	28.2	24.8	25.6	27.2	20.0	24.6	25.0	26.1	15.0	15.6	20.9	20.9	22.6	25.3	26.0	19.6	19.7	
17.5	15.6	19.1	28.4	21.8	23.9	27.7	22.2	22.2	29.9	19.8	14.7	13.1	19.0	19.0	19.5	19.5	20.4	19.7	20.4	
15.9	15.6	21.8	23.6	17.9	23.4	20.5	20.0	19.4	15.5	24.5	22.0	14.5	15.2	24.1	19.9	15.6	21.2	25.0	17.6	1
20.2	14.6	20.4	28.8	21.4	23.9	18.8	22.5	18.3	24.1	19.9	25.7	18.3	16.8	22.3	18.6	18.5	19.7	22.3	22.7	2
17.9	21.3	18.9	28.3	29.3	23.3	24.0	19.6	26.2	20.0	22.7	22.0	25.0	23.3	24.9	22.7	20.5	30.7	21.8	21.2	3
17.9	15.6	20.9	28.0	21.4	23.0	19.0	19.2	22.0	15.9	24.1	16.2	19.5	14.7	20.3	18.3	17.3	20.4	15.8	16.6	4
17.0	21.8	18.9	27.9	23.2	23.5	25.3	20.0	18.3	13.4	26.8	16.8	20.0	19.8	20.3	18.6	17.8	20.4	21.8	21.2	5
18.2	13.5	23.8	30.9	27.1	24.8	20.8	17.0	20.9	19.6	20.8	21.5	21.1	15.0	17.5	17.6	20.2	17.0	15.2	19.4	6
23.0	19.8	26.7	39.6	22.3	27.2	26.8	23.7	20.4	22.9	27.3	20.4	20.6	24.0	27.7	24.3	18.3	20.4	22.8	21.9	7
35.2	19.8	24.7	46.1	27.5	26.6	29.5	20.3	21.5	24.9	22.7	21.0	31.1	28.3	21.1	23.1	20.5	22.0	17.4	21.7	8
40.2	15.1	27.7	54.4	23.6	28.7	30.5	27.7	24.1	20.0	36.1	23.1	43.4	25.3	23.7	25.9	20.5	17.0	18.5	23.9	9
37.7	16.1	31.1	45.2	27.1	32.2	30.3	34.4	25.1	19.2	35.2	23.6	42.8	35.7	27.4	30.4	23.1	27.6	32.1	34.0	10
32.2	21.3	30.1	37.1	32.3	33.1	30.0	44.0	31.9	22.1	40.3	26.7	31.7	36.4	34.0	27.7	22.9	27.3	26.1	34.5	11
20.7	22.4	18.9	27.7	30.6	36.5	33.6	38.1	25.1	36.4	31.5	32.0	20.6	26.9	32.2	25.1	26.9	30.3	25.6	29.0	12
18.9	27.0	16.5	25.5	37.1	30.8	29.8	29.6	42.4	26.2	30.6	20.5	17.8	22.8	24.9	21.0	27.9	23.1	20.7	21.9	13
15.4	23.9	18.4	24.9	22.3	26.4	23.0	28.5	33.0	27.0	31.9	13.1	23.3	19.3	21.9	20.7	25.5	25.7	20.7	16.9	14
19.8	22.9	18.0	24.1	26.2	24.6	22.5	22.5	24.1	24.9	28.2	17.3	17.8	18.2	19.0	19.8	22.9	18.9	19.0	20.1	15
16.8	16.1	22.8	24.4	34.5	29.7	26.3	17.0	20.9	26.6	19.9	27.8	21.7	16.1	20.8	18.8	20.2	24.2	17.9	19.1	16
16.3	13.0	18.4	23.7	27.5	27.6	21.5	16.6	25.1	23.7	29.2	13.6	23.6	16.8	17.1	17.0	18.8	19.7	18.5	19.9	17
10.6	14.6	20.9	23.2	20.1	23.9	21.5	23.3	26.7	22.9	19.0	12.6	17.2	16.6	17.7	18.4	21.4	15.5	15.2	19.4	18
14.5	17.7	15.5	23.0	22.7	22.3	18.8	19.2	23.6	20.0	24.5	15.2	23.9	16.6	18.1	16.3	13.5	13.6	14.1	21.7	19
16.1	14.6	18.4	23.2	22.7	25.7	26.5	22.2	20.9	17.2	28.7	19.9	16.1	17.5	15.7	15.2	20.5	15.9	13.6	18.6	20
17.9	16.6	15.5	27.3	23.2	26.0	21.8	17.7	25.1	17.2	16.7	13.1	17.2	17.3	17.5	14.6	14.9	16.7	12.0	21.4	21
16.8	9.9	14.6	27.6	21.4	23.8	18.3	20.0	23.0	16.8	21.8	14.2	14.5	13.4	17.5	19.2	12.3	18.6	19.6	17.9	22
13.7	11.4	14.1	20.9	21.4	19.8	20.1	23.2	25.7	20.0	18.1	14.2	15.6	11.7	13.8	14.8	16.4	14.8	17.4	15.9	23
12.1	17.2	18.0	23.8	23.6	21.3	20.5	15.9	10.5	19.2	14.8	13.6	14.5	15.4	14.6	15.8	15.4	11.4	15.8	16.9	24
15.2	14.6	16.5	25.1	15.7	20.4	13.3	21.4	13.1	12.3	13.5	13.6	18.9	17.0	17.4	16.9	14.9	17.0	14.7	12.8	25
12.4	9.9	18.4	25.7	19.2	19.0	21.0	15.2	19.4	17.6	11.6	11.5	13.3	13.8	15.3	14.3	15.9	21.2	22.8	17.1	26
10.6	14.0	19.4	24.4	17.9	18.7	21.8	15.9	17.8	20.4	18.1	15.2	13.9	21.4	19.6	17.0	18.3	17.0	13.6	20.1	27
16.6	14.0	19.4	30.2	17.0	20.7	26.0	17.0	18.8	18.4	26.4	8.9	11.7	18.4	21.0	17.0	18.5	18.6	15.2	15.6	28
15.0	17.2	18.4	30.3	22.7	23.7	27.5	16.3	16.2	16.3	25.9	12.1	11.7	22.1	26.2	24.8	20.5	20.1	18.5	19.8	29
17.7	18.2	23.6	30.0	20.1	25.0	29.5	15.9	20.9	22.1	31.5	13.6	16.1	21.4	24.0	21.1	25.3	22.3	15.2	16.9	30
19.6	13.5	13.1	30.0	23.6	23.6	25.3	14.4	17.8	14.7	22.2	10.5	10.0	16.4	20.3	21.6	19.7	15.9	16.3	18.6	31
21.9	16.6	18.4	30.5	25.3	27.1	26.8	22.2	25.7	22.1	33.8	14.2	15.6	18.2	20.4	23.1	20.9	23.9	16.9	18.1	32
22.8	16.6	10.7	37.7	25.3	25.5	24.0	19.6	24.1	20.4	31.0	13.6	13.9	19.6	18.5	23.5	23.1	22.0	19.0	16.9	33
17.9	21.3	18.4	28.2	26.7	30.4	29.0	22.2	23.6	35.6	23.1	18.3	16.1	22.8	17.5	23.6	33.2	26.5	17.4	20.7	34
18.4	19.2	18.0	29.3	34.1	25.0	29.5	25.1	35.6	27.8	23.6	19.4	15.0	23.5	19.6	23.1	31.3	31.0	23.9	22.7	35
20.0	16.1	21.8	24.7	25.3	27.2	25.3	19.2	30.9	34.7	33.8	17.3	20.0	25.8	21.5	23.3	35.6	40.5	20.7	22.9	36
13.6	15.1	15.5	26.6	28.4	30.0	27.5	24.4	33.5	32.7	21.3	16.8	21.1	20.3	20.4	22.2	30.8	37.5	19.6	22.2	37
21.2	18.2	17.5	26.6	25.8	25.7	30.5	25.1	27.7	30.2	25.0	19.9	17.8	21.7	22.0	24.5	31.8	32.9	28.3	19.9	38
24.6	13.7	18.4	28.6	29.7	29.9	29.0	22.2	27.7	29.4	23.6	14.7	20.6	19.6	20.8	24.3	19.5	29.5	30.5	22.2	39
15.6	14.6	22.8	26.6	32.3	24.9	30.3	25.9	23.6	37.2	18.5	14.2	23.9	19.8	18.1	24.5	20.2	28.8	26.1	24.9	40
24.2	21.8	17.0	31.7	22.7	28.4	33.6	21.4	34.0	42.5	26.4	18.9	24.5	25.3	21.6	24.0	22.6	25.7	23.8	27.5	41
13.1	10.4	16.0	24.0	22.7	24.2	25.5	16.6	25.7	31.5	19.0	17.8	17.2	16.8	17.0	17.3	22.9	19.7	21.2	20.7	42
18.2	16.1	19.4	27.8	20.1	26.1	30.5	22.5	27.7	32.3	19.0	13.1	16.7	21.7	20.8	21.0	20.5	27.6	23.9	20.4	43
17.5	18.2	20.4	35.5	24.9	27.5	30.8	23.7	26.2	33.1	25.0	14.2	15.0	21.0	20.2	19.3	21.7	22.3	20.1	20.4	44
16.6	17.2	15.0	37.6	18.8	25.7	29.5	25.1	24.1	35.1	21.8	14.7	25.6	23.5	20.7	25.1	18.8	20.4	17.9	21.2	45
20.9	12.5	18.4	30.8	26.2	22.0	25.0	21.8	21.5	32.3	20.8	10.0	15.6	18.9	16.5	15.7	17.3	20.1	22.8	18.6	46
16.1	17.2	24.7	27.2	17.9	23.0	27.3	26.2	23.0	32.3	15.7	18.9	17.8	17.0	17.7	21.9	17.8	15.1	17.4	20.1	47
17.0	14.6	18.4	33.2	16.6	21.0	23.3	23.3	14.1	29.0	22.7	18.3	15.6	13.1	13.5	18.9	16.4	18.2	14.1	16.6	48
14.3	10.9	20.4	28.9	18.4	23.5	27.3	19.2	14.7	23.7	13.4	12.6	17.8	16.1	18.2	16.1	17.1	14.0	17.4	15.4	49
16.3	20.3	17.5	22.8	21.0	20.4	25.5	21.1	14.7	21.7	16.2	12.6	12.2	19.3	17.3	15.4	22.4	14.8	18.5	18.4	50
18.4	13.0	17.0	27.5	19.7	19.1	21.3	21.8	16.8	16.8	20.4	15.7	15.6	18.4	18.7	18.0	15.6	20.1	14.7	19.6	51
19.3	16.6	20.9	26.1	21.8	25.4	27.3	19.6	22.5	21.2	19.0	10.5	18.3	16.1	20.6	15.7	19.7	17.8	13.6	21.7	52

TABLE 5.—Sixty-seven other large Towns.—Population; Persons to an Acre; Births and Deaths in 1895.

Towns (Urban Districts).	Cols.	The Deaths registered in the Year include																Towns (Urban Districts).		
		Population, estimated of 1895.		Persons to an Acre, 1895.	Births.	Deaths.	Deaths from										Inquest Cases.		Deaths in Public Institutions.	Uncertified Causes of Death.
		Deaths of					Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhoid.	Violence.							
		Infants under 1 Year of Age.	Persons aged 60 Years and upwards.																	
67 Towns		3,641,935	12.7	113,209	67,965	19,940	16,897	8,755	22	1349	593	822	1142	757	4104	2158	3791	6484	1456	67 Towns.
Dover	-	34,678	27.6	927	619	164	187	53	-	-	1	2	16	2	32	25	29	91	45	Dover.
Hastings	-	57,140	31.4	1015	869	123	322	59	-	17	1	3	7	1	25	25	47	45	10	Hastings.
Eastbourne	-	42,570	7.9	911	496	123	171	42	2	5	-	3	14	1	19	11	19	55	2	Eastbourne.
Bournemouth	-	51,051	21.1	811	592	109	182	46	-	6	4	5	15	5	11	21	33	34	2	Bournemouth.
Southampton	-	67,704	33.8	2185	1371	338	427	129	-	15	15	5	9	10	75	72	157	196	2	Southampton.
Reading	-	65,411	11.1	1833	983	262	395	94	-	19	9	7	9	4	46	19	48	126	19	Reading.
Willesden	-	85,962	19.6	2450	1115	370	267	146	-	6	16	38	11	13	62	28	58	101	21	Willesden.
Hornsey	-	53,709	19.1	1139	594	146	182	89	-	13	6	24	11	5	30	16	30	37	-	Hornsey.
Tottenham	-	75,232	25.0	2611	1304	388	291	157	-	45	8	15	11	12	56	48	138	130	5	Tottenham.
Oxford	-	47,984	10.2	1244	764	164	286	54	-	-	-	24	20	3	18	13	141	111	7	Oxford.
Northampton	-	65,364	49.9	1851	981	287	286	97	-	1	6	7	8	8	67	19	28	162	40	Northampton.
Cambridge	-	37,694	11.7	972	631	140	204	43	-	-	-	8	2	5	23	23	63	109	8	Cambridge.
Leyton	-	76,800	30.0	2229	1141	333	263	235	-	52	12	72	25	10	64	23	30	73	62	Leyton.
Walthamstow	-	63,965	14.7	2003	976	303	183	221	-	91	7	35	16	11	61	23	39	58	30	Walthamstow.
Colchester	-	37,580	3.3	1035	671	130	195	114	-	42	4	2	20	2	44	12	36	68	3	Colchester.
Ipswich	-	60,557	7.5	1874	1119	275	337	207	-	5	6	36	33	10	121	34	69	110	5	Ipswich.
Great Yarmouth	-	50,467	14.1	1457	949	275	335	145	-	20	6	8	5	11	93	40	69	123	-	Great Yarmouth.
Exeter	-	37,404	19.9	941	687	135	246	35	-	7	3	1	2	9	13	22	70	88	-	Exeter.
Devonport	-	57,503	32.7	1518	1012	137	343	60	-	26	1	6	4	12	11	37	69	112	7	Devonport.
Bath	-	51,844	15.3	1111	943	147	438	32	-	-	1	10	17	2	24	34	58	102	2	Bath.
St. George (near Bristol)	-	41,222	22.9	1587	643	229	164	63	-	-	5	6	10	-	42	12	26	18	18	St. George (near Bristol).
Gloucester	-	40,700	28.4	1397	796	235	233	67	3	1	2	4	18	10	29	43	55	92	27	Gloucester.
Cheltenham	-	46,743	9.9	1074	843	162	361	45	-	5	5	5	13	6	16	20	32	117	17	Cheltenham.
Longton	-	36,384	18.7	1443	946	346	150	96	-	1	9	4	9	15	58	37	49	32	19	Longton.
Hanley	-	58,069	32.8	2063	1140	422	253	118	-	4	7	14	16	10	67	32	59	95	37	Hanley.
Burton-upon-Trent	-	49,261	11.7	1579	763	209	179	334	-	2	6	22	2	9	35	22	45	93	14	Burton-upon-Trent.
Walsall	-	77,807	10.4	2658	1325	530	334	216	-	28	2	7	7	6	10	163	47	86	95	Walsall.
West Bromwich	-	60,879	12.8	2253	1237	350	295	184	-	55	16	12	8	13	80	56	106	163	6	West Bromwich.
Dudley	-	45,069	17.8	1759	1051	340	258	129	1	11	15	9	13	10	69	40	51	95	68	Dudley.
Worcester	-	44,042	21.8	1875	939	260	315	119	-	-	1	8	5	3	53	27	42	126	21	Worcester.
Smethwick	-	42,257	13.8	1321	622	218	143	39	-	4	1	4	1	6	32	13	37	20	6	Smethwick.
Aston Manor	-	76,100	79.4	2465	1301	478	269	236	-	17	8	34	53	6	134	14	14	69	57	Aston Manor.
Coventry	-	56,486	18.3	1617	959	244	317	128	-	2	18	3	22	6	77	20	44	107	19	Coventry.



TABLE 5. (continued).—Sixty-seven other large Towns.—Population; Persons to an Acre; Births and Deaths in 1895.

TOWNS (Urban Districts).	The DEATHS registered in the Year include													TOWNS (Urban Districts).				
	POPULATION estimated to the Middle of 1895.	Persons to an Acre, 1895.	BIRTHS.	DEATHS.	DEATHS from											Deaths in Public Institutions.	Uncertified Causes of Death.	Cols.
					Deaths of													
					Infants under 1 Year of Age.	Persons aged 60 Years and upwards.	Principal Zymotic Disease.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Fever.	Diarrhoea.	Violence.	Inquest Cases.		
Lincoln -	43,405	11.6	1291	830	250	232	97	-	6	2	7	14	6	62	24	26	Lincoln.	
Grimsb'y -	58,023	20.5	1991	1035	419	202	181	-	4	3	16	5	23	130	32	56	Grimsb'y.	
Stockport -	75,379	34.3	2459	1877	567	421	274	-	80	7	22	31	19	115	33	25	Stockport.	
Macclesfield -	35,388	11.0	936	836	192	288	106	-	17	15	31	9	4	45	13	4	Macclesfield.	
Chester -	37,238	12.6	1154	740	184	240	176	-	9	13	17	26	8	46	38	9	Chester.	
Bootle -	53,961	33.8	1824	1126	343	202	157	2	1	14	14	7	24	77	38	189	Bootle.	
Watton-on-the-Hill -	45,173	23.7	1543	851	262	166	123	1	19	10	7	29	13	44	19	23	Watton-on-the-Hill.	
West Derby -	40,469	7.3	1111	655	141	183	55	-	7	7	5	8	10	18	14	37	West Derby.	
St. Helens -	79,611	10.9	3178	1696	584	264	264	-	57	9	16	16	60	115	58	101	St. Helens.	
Southport -	46,073	12.6	1032	812	146	319	42	-	1	6	3	1	9	22	24	94	Southport.	
Wigan -	58,196	26.6	2258	1337	431	240	154	8	5	4	4	7	9	76	40	168	Wigan.	
Warrington -	57,782	29.3	2120	1249	418	201	277	-	109	16	5	8	14	135	37	136	Warrington.	
Bury -	58,307	9.7	1525	931	313	340	172	-	31	15	23	18	13	80	39	25	Bury.	
Ashton-under-Lyne -	42,012	31.4	1259	976	284	214	132	-	16	11	23	10	14	114	42	199	Ashton-under-Lyne.	
Rochdale -	72,506	17.3	1729	1666	307	461	177	-	33	48	27	16	10	43	37	144	Rochdale.	
Accrington -	42,124	12.3	1118	765	219	166	101	-	15	9	4	7	14	52	23	26	Accrington.	
Darwen -	36,278	6.1	1132	683	178	146	73	-	44	2	2	3	8	14	21	44	Darwen.	
Barrow-in-Furness -	53,729	4.9	1611	717	230	129	72	-	10	1	14	14	9	24	26	23	Barrow-in-Furness.	
Barnsley -	38,150	16.0	1461	962	333	185	223	-	55	17	11	17	23	100	40	77	Barnsley.	
Rotherham -	45,539	7.6	1705	822	264	197	147	-	25	13	2	6	12	89	27	39	Rotherham.	
York -	70,290	18.8	2192	1390	418	374	187	-	9	4	7	20	22	125	39	145	York.	
Scarborough -	85,271	15.0	930	728	175	259	90	-	1	1	2	5	18	62	28	70	Scarborough.	
Middlesbrough -	85,817	30.4	2757	1582	535	246	239	-	2	35	9	38	28	128	43	62	Middlesbrough.	
Darlington -	39,390	10.0	1201	628	202	160	90	-	-	1	12	6	13	58	19	21	Darlington.	
Stockton-on-Tees -	53,583	17.7	1566	1063	337	164	234	-	31	11	49	21	22	39	64	118	Stockton-on-Tees.	
West Hartlepool -	50,021	20.4	1742	806	261	149	170	-	15	12	23	12	12	108	25	44	West Hartlepool.	
South Shields -	89,844	48.9	3048	1846	550	353	272	1	25	16	73	79	31	107	54	126	South Shields.	
Jarrow -	37,910	52.1	1114	663	166	117	118	-	35	4	8	32	4	35	25	47	Jarrow.	
Tynemouth -	47,679	11.0	1510	983	234	251	100	-	46	17	4	6	5	23	39	70	Tynemouth.	
Carlisle -	40,332	19.9	1318	780	182	254	33	-	6	3	6	8	2	8	21	39	Carlisle.	
Newport -	63,539	14.2	2125	1123	342	278	67	-	26	1	9	1	6	24	46	108	Newport.	
Ystradgynafwr -	107,545	4.4	4286	2245	957	290	341	-	77	25	17	80	27	105	112	137	Ystradgynafwr.	
Merthyr Tydfil -	63,488	3.6	2533	1631	587	290	176	-	49	-	21	11	17	77	93	98	Merthyr Tydfil.	
Aberdare -	40,585	2.7	1645	984	340	132	104	-	30	-	14	12	8	34	46	55	Aberdare.	

TABLE 6.—Sixty-seven other large Towns.—Birth-rate, Death-rate, and Analysis of Mortality in 1895.

TOWNS (Urban Districts).	ANNUAL RATES PER 1000 PERSONS LIVING.										DEATHS under 1 Year to 1000 Births.	ANNUAL DEATH-RATE per 1000 living.		PERCENTAGE to Total Deaths.			TOWNS (Urban Districts).	
	DEATHS FROM											Inquest Cases.	Deaths in Public Institutions.	Uncertified Causes of Death.				
	Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Fever.	Diarrhoea.	Violence.									
Colts.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	Colts.
67 Towns	-	18.7	2.40	0.61	0.37	0.15	0.23	0.31	0.21	1.12	0.59	176	9.4	75.2	5.6	9.5	2.1	67 Towns.
Dover	-	17.8	1.53	-	-	0.30	0.06	0.46	0.06	0.92	0.72	177	8.6	64.7	4.7	14.7	7.3	Dover.
Hastings	-	15.2	1.03	0.05	-	0.07	0.14	0.12	0.02	0.43	0.44	131	8.3	65.0	5.4	7.8	1.8	Hastings.
Eastbourne	-	11.7	0.90	-	-	0.12	0.07	0.33	0.02	0.45	0.26	135	5.2	61.5	3.8	11.1	0.4	Eastbourne.
Bournemouth	-	15.9	0.90	-	-	0.13	0.08	0.10	0.20	0.10	0.21	134	6.5	50.9	5.6	5.7	0.3	Bournemouth.
Southampton	-	32.3	20.2	1.91	-	0.22	0.22	0.13	0.13	1.12	1.06	155	10.0	78.4	11.5	14.3	-	Southampton.
Reading	-	23.0	15.0	1.44	-	0.29	0.14	0.11	0.14	0.06	0.70	143	7.0	71.6	4.9	12.8	1.9	Reading.
Willesden	-	13.0	1.70	-	-	0.07	0.19	0.44	0.13	0.15	0.72	151	6.0	66.1	5.2	9.1	1.9	Willesden.
Hornsey	-	21.2	1.66	-	-	0.24	0.11	0.45	0.20	0.09	0.57	138	5.4	60.7	5.1	6.2	-	Hornsey.
Tottenham	-	34.7	2.69	-	-	0.60	0.11	0.33	0.15	0.16	0.74	140	9.0	76.9	10.6	10.0	0.4	Tottenham.
Oxford	-	25.9	1.13	-	-	-	0.29	0.42	0.04	0.38	0.27	132	7.3	72.3	5.4	14.5	0.9	Oxford.
Northampton	-	28.3	1.48	-	-	0.02	0.09	0.11	0.12	1.02	0.29	155	6.8	70.9	2.9	14.5	4.1	Northampton.
Cambridge	-	25.8	1.14	-	-	-	0.21	0.05	0.13	0.75	0.61	144	8.5	66.7	10.0	17.3	1.3	Cambridge.
Leyton	-	29.0	3.06	-	-	0.68	0.16	0.24	0.33	0.13	0.82	158	7.4	59.8	2.6	6.4	5.4	Leyton.
Walthamstow	-	31.4	3.46	-	-	1.42	0.11	0.55	0.25	0.17	0.96	153	8.2	58.8	4.0	5.7	3.1	Walthamstow.
Colchester	-	27.5	3.03	-	-	1.12	0.11	0.05	0.53	0.05	1.01	184	8.4	72.0	5.4	10.1	0.4	Colchester.
Ipswich	-	30.9	3.41	-	-	0.03	0.03	0.59	0.54	0.16	2.01	180	8.2	66.2	6.2	9.8	0.4	Ipswich.
Great Yarmouth	-	23.9	2.83	-	-	0.40	0.12	0.16	0.10	0.22	1.83	189	7.6	70.5	7.3	13.0	-	Great Yarmouth.
Exeter	-	25.2	0.94	-	-	0.19	0.08	0.03	0.05	0.24	0.35	143	9.3	65.7	10.2	12.8	-	Exeter.
Devonport	-	26.4	1.04	-	-	0.45	0.02	0.10	0.07	0.21	0.19	130	9.2	72.6	6.8	11.1	0.7	Devonport.
Bath	-	21.4	0.62	-	-	-	0.12	0.19	0.33	0.04	0.46	132	7.9	75.4	6.2	17.2	0.2	Bath.
St. George (near Bristol)	-	37.6	1.46	0.07	-	0.03	0.05	0.14	0.24	-	0.99	144	6.4	80.0	4.0	2.8	2.8	St. George (near Bristol).
Gloucester	-	32.1	1.64	-	-	0.11	0.11	0.44	0.25	0.70	1.05	180	8.9	75.2	6.9	11.6	3.4	Gloucester.
Cheltenham	-	23.0	0.96	-	-	0.03	0.25	0.13	0.28	0.13	0.33	151	7.8	72.7	3.8	13.9	2.0	Cheltenham.
Longton	-	39.6	2.64	-	-	0.07	0.12	0.25	0.41	1.59	1.02	240	13.4	93.4	5.2	9.7	2.0	Longton.
Hanley	-	36.1	2.03	-	-	0.07	0.12	0.28	0.17	1.15	0.55	202	9.1	83.1	5.2	5.7	3.2	Hanley.
Burton-upon-Trent	-	32.1	1.52	-	-	0.04	0.10	0.04	0.18	0.71	0.45	182	8.3	72.7	5.9	12.2	1.8	Burton-upon-Trent.
Walsall	-	34.2	2.78	-	-	0.36	0.03	0.09	0.08	0.13	2.09	199	9.3	77.4	5.6	6.2	0.9	Walsall.
West Bromwich	-	20.3	3.02	-	-	0.42	0.26	0.20	0.05	0.28	1.31	157	10.7	81.4	8.6	13.2	0.5	West Bromwich.
Dudley	-	38.2	2.83	0.02	-	0.24	0.35	0.02	0.29	0.07	0.88	103	11.0	87.6	4.9	9.0	6.3	Dudley.
Worcester	-	31.2	2.70	-	-	-	0.18	1.23	0.07	1.20	0.61	189	9.8	85.8	4.4	13.1	2.2	Worcester.
Smethwick	-	35.0	0.92	0.05	-	0.09	0.09	0.12	0.07	0.53	0.43	143	6.7	71.1	5.9	3.2	1.0	Smethwick.
Aston Manor	-	32.4	3.10	-	-	0.22	0.11	0.45	0.43	0.08	1.76	104	7.9	71.8	1.1	5.3	4.4	Aston Manor.
Coventry	-	23.6	2.27	-	-	0.04	0.32	0.05	0.39	0.11	1.36	151	7.8	72.3	4.6	11.2	2.0	Coventry.



TABLE 6 (continued).—Sixty-seven other large Towns.—Birth-rate, Death-rate, and Analysis of Mortality in 1995.

Towns (Urban Districts).	ANNUAL RATE PER 1000 PERSONS LIVING.										DEATHS under 1 Year to 1000 Births.	ANNUAL DEATH-RATE per 1000 living.	PERCENTAGE to Total Deaths.			Towns (Urban Districts).		
	BIRTHS.	DEATHS.	DEATHS from							Deaths in Public Institutions.			Uncertified Causes of Death.					
			Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.					Diarrhoea.	Violence.			
Cols.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	Cols.
Lincoln	29.7	19.1	2.23	-	0.14	0.05	0.16	0.32	0.14	1.42	0.55	19.4	8.9	74.2	4.2	8.8	3.1	Lincoln.
Grimsby	34.3	17.8	3.12	-	0.07	0.05	0.28	0.09	0.40	2.23	0.55	21.0	7.7	68.6	6.1	5.4	1.8	Grimsby.
Stockport.	32.6	24.9	3.03	-	1.06	0.09	0.29	0.41	0.25	1.53	0.44	23.1	12.9	91.2	4.4	12.0	1.4	Stockport.
Macclesfield	26.4	23.6	3.00	-	0.48	0.08	0.46	0.25	0.11	1.28	0.37	20.5	11.4	85.4	5.5	14.6	0.5	Macclesfield.
Chester	31.0	19.9	2.04	-	0.24	0.40	0.26	0.19	0.21	0.64	0.70	13.9	9.4	86.4	5.7	18.2	1.2	Chester.
Bootle	33.8	20.9	2.91	0.04	0.02	0.48	0.44	0.29	0.48	1.43	0.70	18.8	11.6	88.0	5.4	16.8	4.3	Bootle.
Walton-on-the-Hill	34.2	18.8	2.72	0.02	0.42	0.22	0.15	0.64	0.29	0.98	0.42	17.0	10.4	49.8	2.1	10.9	2.0	Walton-on-the-Hill.
West Derby	27.5	16.3	1.36	-	0.17	0.17	0.12	0.20	0.25	0.45	0.35	12.7	8.7	73.5	3.8	5.6	6.1	West Derby.
St. Helens	39.9	21.3	3.32	-	0.72	0.11	0.09	0.20	0.75	1.45	0.73	18.4	11.6	79.8	3.8	11.7	6.0	St. Helens.
Southport.	22.4	17.6	0.91	-	0.02	0.13	0.07	0.02	0.20	0.37	0.52	14.1	8.4	80.4	5.3	8.5	3.0	Southport.
Wigan	38.8	23.0	2.95	0.14	0.09	0.69	0.31	0.14	0.24	1.30	0.69	19.1	12.4	90.6	5.4	10.2	2.1	Wigan.
Warrington	36.7	22.8	2.95	-	1.89	0.38	0.69	0.14	0.24	2.15	0.64	19.7	11.8	75.7	4.5	9.4	1.7	Warrington.
Bury	30.0	23.2	4.79	-	0.38	0.33	0.26	0.62	0.24	2.71	0.62	22.5	12.5	78.2	4.3	10.1	0.7	Bury.
Ashton-under-Lyne	23.8	23.0	2.44	-	0.46	0.66	0.37	0.22	0.14	0.59	0.51	17.8	13.1	106.6	4.9	8.6	4.6	Ashton-under-Lyne.
Rochdale	26.5	18.2	2.40	-	0.36	0.61	0.69	0.17	0.33	1.21	0.55	19.9	9.8	76.8	3.9	6.4	3.4	Rochdale.
Accrington	31.2	19.0	2.01	-	1.21	0.03	0.06	0.08	0.22	0.38	0.58	13.7	10.8	87.8	3.9	6.4	0.7	Accrington.
Darwen	30.0	13.3	1.54	-	0.19	0.02	0.26	0.26	0.17	0.44	0.48	14.3	7.1	66.7	3.6	4.7	3.2	Darwen.
Barrow-in-Furness	38.3	25.2	5.85	-	1.44	0.45	0.29	0.45	0.20	2.02	0.73	22.8	12.8	85.1	8.0	10.0	0.6	Barrow-in-Furness.
Barnsley	37.4	18.0	3.22	-	0.55	0.29	0.04	0.13	0.26	1.93	0.59	15.5	8.6	82.6	4.7	9.7	3.8	Barnsley.
Rotherham	31.2	19.8	2.63	-	0.13	0.03	0.10	0.28	0.31	1.78	0.55	19.1	9.4	72.5	5.7	10.4	1.6	Rotherham.
York	26.4	20.6	2.55	-	0.06	0.03	0.06	0.14	0.51	1.75	0.79	18.8	9.4	78.5	8.9	9.6	-	York.
Scarborough	32.1	18.4	2.78	-	0.01	0.41	0.10	0.44	0.33	1.49	0.50	19.4	10.0	71.3	3.9	11.1	4.7	Scarborough.
Middlesbrough	30.5	15.9	2.28	-	-	0.03	0.30	0.15	0.33	1.47	0.48	16.8	7.4	65.0	3.3	6.6	3.3	Middlesbrough.
Darlington	29.2	18.7	4.37	-	-	0.38	0.21	0.91	0.32	2.23	0.73	21.5	10.1	65.3	6.4	11.8	1.4	Darlington.
Stockton-on-Tees	34.8	16.1	3.40	-	-	0.30	0.24	0.46	0.46	2.16	0.50	15.0	8.6	67.4	5.5	9.3	1.2	Stockton-on-Tees.
West Hartlepool	33.9	20.5	3.03	0.01	0.28	0.18	0.14	0.88	0.35	2.16	0.60	18.4	11.3	82.5	6.8	7.0	1.4	West Hartlepool.
South Shields	29.4	17.5	3.11	-	0.92	0.11	0.21	0.84	0.11	1.19	0.66	14.9	10.8	83.0	7.1	6.8	1.4	South Shields.
Jarrow	31.7	20.6	2.10	-	0.97	0.36	0.08	0.10	0.10	0.49	0.82	13.5	11.3	82.7	7.1	7.6	1.0	Jarrow.
Tynemouth	32.7	19.3	0.82	-	0.15	0.07	0.15	0.20	0.05	0.20	0.52	13.8	9.5	87.3	5.0	12.9	2.9	Tynemouth.
Carlisle	33.4	17.7	1.05	-	0.41	0.02	0.14	0.02	0.09	0.37	0.72	16.1	8.6	81.0	9.6	11.3	0.3	Carlisle.
Newport	39.9	20.9	3.17	-	0.72	0.23	0.25	0.74	0.25	0.98	1.04	22.3	10.3	68.0	6.1	1.1	0.3	Newport.
Ystradgynafwr	39.9	25.7	2.77	-	0.77	0.17	0.27	0.35	0.21	1.46	1.46	23.2	13.0	77.1	8.5	6.0	1.3	Ystradgynafwr.
Merthyr Tydfil	40.5	24.2	2.56	-	0.74	0.15	0.34	0.20	0.20	0.83	1.13	20.7	12.2	85.4	5.6	2.5	0.7	Merthyr Tydfil.
Aberdare	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Aberdare.

TABLE 7.—Births and Deaths in 1895 in **Edinburgh, Glasgow, and Dublin**, and in certain **Colonial and Foreign Cities.**

CITIES.	POPULATION (enumerated or estimated).	BIRTHS.  (Excluding Stillborn.)	DEATHS.	ANNUAL RATE per 1000 Persons living.		DEATHS FROM SOME ZYMOTIC DISEASES.							
				Births.	Deaths.	Small-pox.	Measles.	Scarlet Fever.	Diphthe- ria.	Whoop- ing-cough.	Fever.	Diarrhoeal Diseases.	
EDINBURGH - -	273,535	7398	5660	27·1	20·7	17	255	69	34	58	55	207	
GLASGOW - - -	695,876	22797	16300	32·9	23·5	23	328	173	111	616	123	709	
DUBLIN - - -	349,594	10049	9742	28·8	27·9	121	3	44	21	95	121	282	
CALCUTTA (46 weeks)	466,460	-	14595	-	35·5	1562	89	-	9	13	5937	2499†	
BOMBAY - - -	821,764	15626	24938	19·1	30·4	271	541	?	?	?	6431†	1895†	
MADRAS - - -	452,513	19025	17014	42·2	37·7	3	252	?	?	?	6227†	2341†	
SYDNEY (with Suburbs).	423,600	12892	5549	30·4	13·1	-	-	16	88	86	83	340	
BRISBANE do. -	93,657	3331	1279	35·6	13·7	-	1	-	19	56	24	86	
PARIS - - -	2,424,705	57983	51451	24·0	21·3	16	682	179	421*	426	274	3635	
BRUSSELS (with Faubourgs).	507,985	12271	10040	24·2	19·8	6	172	57	106*	57	82	897	
AMSTERDAM - -	451,493	14040	7833	31·2	17·4	3	5	13	67	124	48	13	
ROTTERDAM - -	272,042	9482	5231	35·0	19·5	33	52	12	11	97	6	6	
THE HAGUE - -	180,455	5327	3387	29·6	18·8	-	2	16	32	77	9	2	
COPENHAGEN - -	333,714	10117	6144	30·4	18·5	-	56	69	79	223	56	338	
STOCKHOLM - -	259,304	6928	4398	26·8	17·0	-	23	43	59*	7	23	142	
CHRISTIANIA - -	174,717	2059	2936	11·8	16·9	-	7	32	36	36	12	298	
ST. PETERSBURG (without Faubourgs).	954,400	29823	27379	31·3	28·8	84	347	670	567	861	831	3313	
MOSCOW - - -	753,469	-	26771	-	35·6	31	208	398	569	125	376	4864	
BERLIN - - -	1,734,402	44894	33544	26·0	19·4	8	323	815	936	448	90	4953	
HAMBURG - - -	608,710	21049	11699	34·7	19·3	1	17	113	134*	153	57	898	
DRESDEN - - -	324,341	10502	6559	32·5	20·3	1	44	58	167*	58	15	886	
BRESLAU - - -	367,769	12613	10093	34·4	27·5	-	40	238	237*	39	35	1523	
MUNICH - - -	396,000	13679	10284	34·6	26·0	-	125	50	203*	60	12	2319	
VIENNA - - -	1,495,764	45392	34435	30·4	23·1	3	737	456	681*	193	85	3418	
PRAGUE - - -	351,478	10904	8853	31·1	25·3	1	63	52	82	60	142	245	
BUDA-PESTH - -	566,022	20917	14670	37·1	26·0	12	145	111	196	20	114	1457	
TRIESTE - - -	160,925	4992	4841	31·1	30·2	2	2	56	271*	59	8	351	
ROME - - -	465,563	11498	9570	24·8	20·6	3	213	17	37	19	290†	819	
MILAN - - -	441,943	12199	10868	27·6	24·6	13	23	14	467	10	245	604	
TURIN - - -	344,203	7442	7154	21·6	20·8	7	86	22	76	50	112	496	
VENICE - - -	158,159	4085	3887	25·9	24·6	-	26	2	39*	26	36	382	
CAIRO - - -	374,883	21935	18012	58·5	48·1	101	11	-	90*	34	339†	5585†	
ALEXANDRIA - -	231,396	11829	7855	51·1	33·9	25	3	1	100*	23	239†	2409†	
NEW YORK - - -	1,860,700	-	43284	-	23·3	10	784	463	1641	494	324	3202	
BROOKLYN - - -	1,100,000	-	22519	-	20·5	2	190	119	1133	264	168	1972	
BOSTON - - -	501,083	-	11329	-	22·6	-	19	114	588	47	163	627	
PHILADELPHIA -	1,163,864	-	23799	-	20·5	50	84	79	1349	151	471	1392	
BALTIMORE - -	496,315	-	10301	-	20·8	-	68	59	265	68	192	686	
CINCINNATI - -	336,000	-	6096	-	18·1	25	85	6	136	38	120	200	
ST. LOUIS - - -	560,000	-	9425	-	16·8	73	38	20	522	23	262†	653	
NEW ORLEANS - -	275,000	-	8033	-	29·3	57	57	5	104	19	461†	608	
BUENOS AYRES -	611,653	26767	16033	43·8	26·2	277	204	598	381*	42	209	1010†	

\* Including deaths from group.

† Including 1136 deaths from cholera in Calcutta, 80 in Bombay, 132 in Madras, 2 in Cairo, one in Alexandria, and 175 in Buenos Ayres.

‡ Including deaths from malarial fever.



TABLE 8.—LONDON. Numbers of **Natives** and **Immigrants** respectively, **living** in LONDON, in 1881 and in 1891.

	MALES.		FEMALES.		EXCESS OF FEMALES.	
	1881.*	1891.	1881.*	1891.	1881.*	1891.
TOTAL INHABITANTS - - -	1,797,043	1,990,748	2,018,501	2,220,995	221,458	230,247
BORN IN LONDON - - -	1,146,935	1,323,480	1,254,756	1,435,915	107,821	112,435
BORN OUT OF LONDON - - -	650,108	667,268	763,745	785,080	113,637	117,812

\* The figures for 1881 relate to Registration London as constituted in 1891.

TABLE 9.—GREATER LONDON (THE METROPOLITAN AND CITY POLICE DISTRICTS).—**Area, Population, Inhabited Houses, and Ratable Value.**

	AREA.		Enumerated POPULATION, 1891.	DENSITY OF POPULA- TION in 1891.		INHABITED HOUSES, 1891.	RATABLE VALUE.* 1891.
	In Acres.	In Square Miles.		Persons to an Acre.	Persons to a Square Mile.		
GREATER LONDON - - -	443,421	693	5,633,806	12·7	8,130	789,408	£ 40,913,457
REGISTRATION LONDON - - -	74,672	117	4,211,743	56·4	85,998	544,977	32,932,967
OUTER RING - - -	368,749	576	1,422,063	3·9	2,469	244,431	7,981,490

\* Supplied from the London County Council and Metropolitan Police Offices.

TABLE 10.—GREATER LONDON (THE METROPOLITAN AND CITY POLICE DISTRICTS).—**Population; and Births and Deaths** in the 52 Weeks of 1895.

	POPULATION, estimated to the middle of 1895.	ANNUAL RATE per 1000 living.			TOTAL BIRTHS.	TOTAL DEATHS.	The DEATHS registered in the 52 Weeks include									
		Births.	Deaths.	Principal Zymotic Diseases.			Deaths of		Deaths from							Deaths in Public Institutions.
							Infants under 1 Year of Age.	Persons aged 60 Years and upwards.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Fever.	Diarrhoea.	
GREATER LONDON	6,048,555	30·1	18·4	2·46	181,305	110,968	28,906	28,162	66	3259	994	3043	1802	870	4784	25516
REGISTRATION LONDON*	4,392,346	30·5	19·8	2·64	133,715	86,937	22,173	21,554	55	2633	829	2316	1483	629	3300	23182
OUTER RING	1,656,209	28·8	14·5	1·98	47,590	24,031	6733	6608	11	626	165	727	319	241	1184	2234

\* See note (f) to Table 1.

TABLE 11.—London.—Mortality in Five Groups of Districts (not corrected for deaths in Institutions), and Meteorology at Greenwich, 1851-1895.

		LONDON.	GROUPS OF DISTRICTS.					METEOROLOGY AT GREENWICH.			
			WEST.	NORTH.	CENTRAL.	EAST.	SOUTH.				
Area in Square Miles -		116.7	16.2	21.1	3.3	8.6	67.5				
Decennial Increase of Population per Cent., 1881-91 -		10.4	10.6	9.7	-12.3 (decrease).	1.8	20.5				
Enumerated Population, 1891		4,211,743	740,735	993,884	247,538	705,114	1,524,472				
Density: Persons to an Acre		<div><div>1851 1861 1871 1881 1891</div><div>30 36 42 49 56</div></div>	<div><div>35 44 52 62 71</div><div>36 46 56 67 74</div></div>	<div><div>203 175 150 127 116</div><div>78 92 107 116 128</div></div>	<div><div>14 17 21 23 35</div><div>14 17 21 23 35</div></div>						
YEARS.		ANNUAL RATE OF MORTALITY PER 1000.						METEOROLOGY IN EACH YEAR.			
1841-95		22.9	21.5	21.6	24.7	25.2	22.6	49.2	81	ins. 24.3	miles. 11.1
1841-50		24.8	23.0	22.7	24.7	26.2	26.2	49.4	82	24.5	—
1851-60		23.7	22.6	22.2	24.4	25.1	24.4	49.0	81	24.4	10.0
1861-70		24.4	22.7	23.6	26.5	26.9	23.4	49.6	81	24.0	10.8
1871-80		22.5	20.8	21.9	24.9	25.0	21.9	49.2	81	26.5	11.6
1881-90		20.5	19.7	19.1	23.3	23.7	19.5	48.9	81	23.1	11.8
1851		23.4	22.0	22.2	24.1	24.3	24.0	49.2	78	21.6	10.3
1852		22.5	21.5	21.2	23.9	23.3	23.0	50.6	76	34.2	10.6
1853		24.4	22.3	22.4	25.1	26.5	25.3	47.7	79	29.0	9.5
1854		23.4	23.5	24.4	27.4	30.0	34.8	48.9	83	18.7	10.3
1855		24.3	23.0	23.3	25.1	25.5	24.6	47.1	83	21.1	9.9
1856		22.0	21.5	21.1	23.0	23.3	21.8	49.0	83	22.2	10.6
1857		22.4	21.2	21.5	23.8	24.6	21.5	51.0	83	21.4	9.3
1858		23.9	22.4	22.9	24.5	25.8	24.0	49.2	79	17.8	9.7
1859		22.7	21.4	21.7	24.1	24.0	22.6	50.7	80	25.9	9.5
1860		22.4	22.2	21.2	23.3	24.1	22.1	47.0	84	32.0	10.0
1861		23.2	22.1	22.3	25.4	24.0	22.8	49.4	84	20.8	9.9
1862		23.6	22.0	22.0	26.2	26.0	22.7	49.5	84	26.2	10.0
1863		24.5	22.9	23.8	26.9	26.5	23.3	50.3	80	20.0	10.3
1864		26.4	24.4	25.3	29.5	29.0	25.3	48.5	78	16.7	9.5
1865		24.5	22.6	24.5	27.1	26.5	23.2	50.3	80	29.0	9.3
1866		26.5	22.6	25.3	27.1	34.0	24.1	49.8	82	30.7	11.4
1867		23.0	21.7	23.1	24.8	24.2	22.1	48.6	82	28.4	11.8
1868		23.5	22.2	22.7	25.2	25.4	22.9	51.5	78	25.2	12.2
1869		24.6	22.2	23.5	26.6	27.9	23.8	49.5	81	24.0	12.2
1870		24.1	23.8	23.5	26.0	25.0	23.4	48.7	79	18.5	11.1
1871		24.6	22.5	25.6	25.0	26.1	24.0	48.7	81	22.3	10.5
1872		21.5	19.6	21.2	23.6	23.6	20.7	50.7	82	30.0	11.9
1873		22.4	20.5	21.2	25.1	25.3	21.7	48.9	82	23.4	11.8
1874		22.4	20.9	21.7	25.7	25.5	21.0	49.3	82	20.0	11.5
1875		23.6	22.2	22.2	26.2	25.7	23.3	49.2	80	28.2	11.5
1876		21.9	21.0	21.2	24.1	24.0	21.2	50.1	80	24.2	12.1
1877		21.6	19.2	21.5	24.2	24.5	20.5	49.4	79	26.9	13.0
1878		23.1	21.6	22.0	25.2	25.1	23.0	49.6	81	29.2	11.1
1879		22.6	20.9	21.5	26.3	25.5	21.8	46.2	83	31.3	11.3
1880		21.7	19.8	20.8	23.8	24.3	21.3	49.4	84	29.8	11.7
1881		21.3	19.6	20.7	23.4	24.3	20.5	48.7	81	25.2	12.1
1882		21.5	20.0	19.8	24.0	25.3	20.8	49.7	84	25.2	12.8
1883		20.8	19.8	19.4	23.3	24.4	19.8	49.4	82	21.9	12.1
1884		20.9	19.7	19.6	23.8	23.4	20.2	50.7	80	18.1	11.6
1885		20.4	19.9	19.3	22.9	23.0	19.1	48.6	81	24.0	12.0
1886		20.6	19.8	18.9	23.4	23.9	19.9	48.7	81	24.2	11.8
1887		20.3	19.9	18.9	23.5	23.3	19.4	47.8	79	19.9	11.5
1888		19.3	19.3	17.7	22.7	22.7	18.1	47.7	82	27.5	12.3
1889		18.4	18.1	16.9	20.9	21.2	17.7	48.8	83	23.3	10.2
1890		21.4	20.5	19.6	24.8	25.1	19.6	48.6	81	21.9	11.2
1891		21.5	20.8	20.1	26.4	24.1	19.8	48.4	82	25.1	11.7
1892		20.7	20.1	19.5	24.0	23.5	19.1	48.1	80	22.3	11.0
1893		21.3	19.6	20.1	25.6	24.8	19.5	51.1	76	20.1	11.2
1894		17.8	17.1	16.4	20.2	20.9	16.3	49.9	81	26.9	12.4
1895		19.8	18.5	18.2	23.8	23.4	18.3	49.3	78	19.7	11.6

NOTE.—The population upon which these rates of mortality have been calculated are deduced from the numbers enumerated at the five Censuses of 1851, 1861, 1871, 1881, and 1891. The deaths used for the 44 years 1851-94 are for the calendar years, while those for 1895 are the numbers registered in the 52 weeks ending 28th December 1895.

The hamlet of Mottingham was transferred from Lewisham District to the Outer Ring on 1st April 1887. Certain changes affecting the West and Central groups of districts were made in the year 1868, but no corrections for these changes have been made in this Table for any year prior to 1861.

\* Approximated to the results of Robinson's anemometer by reduction from Whewell's, up to 1859.



TABLE 12.—LONDON: Population at different Ages, as enumerated in 1851, 1861, 1871, 1881, and 1891, with the Numbers of Males and Females at the various Ages in 1891.

—	ALL AGES.	0—	5—	10—	15—	20—	25—	35—	45—	55—	65—	75—	85 and upwds.
1851	2,362,236	203,562	243,648	216,369	213,634	241,401	428,123	308,949	208,363	122,946	62,608	19,845	2,728
1861	2,803,989	362,296	300,259	264,349	259,155	277,389	476,902	366,417	246,918	149,503	74,039	23,721	3,141
1871	3,254,260	422,629	349,686	309,658	307,075	321,535	551,973	404,954	290,977	174,265	90,198	27,604	3,656
1881	3,816,483	497,044	419,740	366,111	368,628	385,236	641,265	471,131	320,530	205,921	103,815	32,982	4,080
1891	4,211,743	501,622	454,160	416,425	416,820	428,454	717,514	519,637	368,536	221,551	122,726	39,172	5,126
Males -	1,990,748	249,309	225,805	206,228	197,424	194,110	333,689	246,219	173,111	98,776	50,407	14,070	1,510
Females	2,220,995	252,313	228,265	210,197	219,396	234,344	383,825	273,418	195,425	122,775	72,519	25,102	3,616

NOTE.—In England and Wales the proportion of Females to Males in the population in 1891 was as 106 to 100; in London it was as 112 to 100. The proportions in 1881 were 105 and 112 respectively. The figures in this table refer to London as constituted in the respective census years.

TABLE 13.—LONDON: Marriages, Births, and Deaths, 1885-1895.

YEARS.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895 (52 weeks).
MARRIAGES - - -	34,560	34,482	34,251	34,635	35,412	36,762	37,341	37,191	37,016	36,924	37,593
BIRTHS - {											
Persons -	132,962	134,339	133,359	131,761	132,233	128,161	134,494	132,328	133,062	131,454	133,715
Males -	67,924	68,507	67,569	66,919	67,398	65,168	68,383	67,443	67,688	66,866	68,085
Females -	65,028	65,832	65,790	64,842	64,835	62,993	66,101	64,885	65,374	64,588	65,630
DEATHS* - {											
Persons -	80,978	82,691	82,443	79,244	76,162	89,263	90,595	88,440	91,552	77,483	86,937
Males -	41,285	42,257	42,201	40,495	38,947	45,959	46,487	44,851	46,840	39,751	44,184
Females -	39,693	40,434	40,242	38,749	37,215	43,309	44,108	43,589	44,712	37,732	42,753
EXCESS OF BIRTHS OVER DEATHS - - - - -	51,974	51,648	50,916	52,517	56,071	38,893	43,889	43,888	41,510	53,971	46,778
ANNUAL RATES PER 1000. {											
Persons Married -	17.4	17.2	16.9	16.9	17.1	17.6	17.7	17.4	17.2	17.0	17.1
Births -	33.4	33.4	32.9	32.1	31.9	30.7	31.9	30.9	30.9	30.2	30.5
Deaths -	20.4	20.6	20.3	19.3	18.4	21.4	21.5	20.7	21.3	17.8	19.3

NOTE.—The figures in the above table, except those for 1895, relate to the calendar year ending 31st December. The figures for 1895 relate to the 52 weeks ending 28th December 1895.

\* See note † to Table 1.

TABLE 14.—LONDON. Population, and Zymotic and

PERIOD AND YEAR.	ESTIMATED POPULATION.	DEATHS FROM PRINCIPAL ZYMOTIC DISEASES.									
		Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhoea and Dysentery.	Cholera.
Cols. - 1	2	3	4	5	6	7	8	9	10	11	12
Period.											
1841-50	2,103,487	8,416	13,011	18,314		18,079	20,890			16,926	15,588
1851-60	2,570,489	7,150	13,766	26,317		22,407	22,597			26,362	12,886
1861-70	3,018,193	8,347	17,338	34,391	5,323	26,550	27,149			31,578	7,403
1871-80	3,513,843	15,539	17,947	21,247	4,319	28,728	1,887	8,536	2,579	33,168	1,328
1881-90	4,000,475	5,634	25,449	13,268	10,435	27,686	327	7,502	717	29,922	941
1846	2,113,535	257	747	928		2035	1838			2308	228
1847	2,202,673	955	1778	1433		1600	3267			2283	117
1848	2,244,837	1620	1144	4767		1630	3685			2247	652
1849	2,287,302	521	1154	2149		2349	2564			3837	14,125
1850	2,330,054	499	980	1169		1568	2032			2077	127
1851	2,373,081	1062	1297	1285		2185	2374			2755	213
1852	2,416,367	1159	595	2571		1539	2183			2513	162
1853	2,459,899	211	978	2016		2667	2617			2649	883
1-54	2,503,662	694	1409	3477		2502	2816			3125	10,738
1855	2,547,639	1039	878	2611		2438	2460			2190	149
1-56	2,591,815	531	1479	1819		2092	2717			2414	152
1857	2,636,174	156	1341	1599		2527	2195			3298	214
1858	2,680,700	242	2369	4184		2708	1919			2220	131
1859	2,725,374	1158	1330	3481	773	1742	1840			3513	193
1-60	2,770,181	898	2099	2017	484	2067	1476			1485	51
1861	2,815,101	217	1062	2381	674	3548	1848			2740	168
1-62	2,860,117	366	2334	3492	730	2168	3673			1839	106
1863	2,905,210	1996	1634	4955	799	2175	2871			2492	159
1864	2,950,361	547	2788	3244	611	2123	3782			3013	156
1-65	2,995,551	640	1290	2179	431	2935	3217			3721	196
1866	3,041,761	1391	2220	1892	462	2960	2588			3294	5596
1867	3,086,971	1315	1143	1451	447	2278	2184			3060	240
1868	3,131,160	597	1962	2916	495	2338	2468			4110	324
1869	3,176,398	275	1456	5841	340	3769	716	1069	615	3495	219
1870	3,221,394	973	1449	6040	334	1956	472	976	570	3814	239
1871	3,267,251	7912	1427	1902	314	2291	384	871	436	3668	221
1872	3,319,736	1786	1680	918	267	3259	174	807	322	3588	181
1873	3,373,065	113	2149	645	320	2620	277	908	325	3950	162
1874	3,427,250	57	1680	2618	419	1867	312	879	337	3201	123
1-75	3,482,306	46	140	1677	581	3204	128	817	272	3289	108
1-76	3,538,245	736	1720	2308	387	2737	159	769	202	3585	135
1877	3,595,085	2551	2387	1580	316	1817	157	901	194	2121	88
1878	3,652,887	1417	1500	1808	566	4483	151	1033	197	3534	124
1-79	3,711,517	450	2475	2561	575	2934	71	819	160	1894	53
1880	3,771,138	471	1521	3100	544	3516	74	702	134	3718	133
1881	3,824,980	2337	2536	2114	657	1973	92	971	131	3055	95
1882	3,869,956	430	2338	2006	857	4682	53	975	95	2144	79
1-83	3,901,309	136	2441	2006	952	1598	55	963	102	2652	83
1884	3,910,042	1236	2271	1439	951	3156	32	925	78	3903	163
1885	3,979,160	1419	2909	722	904	2431	28	597	78	2723	77
1-86	4,018,661	21	2088	690	851	2871	13	618	73	3996	137
1887	4,058,565	9	2904	1443	953	2935	19	612	41	3801	107
1-88	4,098,860	9	2425	1214	1311	2993	9	694	35	2206	54
1889	4,139,555	—	2308	785	1617	1787	16	518	42	2692	62
1890	4,180,654	4	3231	858	1382	3210	10	609	36	2750	84
1891	4,222,157	8	1807	598	1435	2872	11	558	44	2435	71
1892	4,264,076	41	3415	1167	1969	2507	11	436	22	2557	87
1893	4,306,411	206	1652	1590	3271	2326	5	692	21	3427	133
1894	4,349,166	95	3295	974	2718	2096	6	642	13	1745	32
1895	4,392,346	55	2633	829	2316	1483	5	614	10	3600	74

NOTE.—Wandsworth was not included in Registration London until 1844, nor Lewisham and throughout, but the population in each year refers

For the years 1846-50 the numbers of deaths from the various diseases are derived from The figures for 1895 are for the



## Infant Mortality in 50 Years 1846-95.

ANNUAL MORTALITY, PER MILLION PERSONS LIVING, FROM PRINCIPAL ZYMOTIC DISEASES.										Annual Mortality of Infants under One Year of Age to 1000 Births.	PERIOD AND YEAR.
Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Ill- Simple and defined Fever.	Diarrhoea and Dysentery.	Cholera.		
13	14	15	16	17	18	19	20	21	22	23	24
402	623	863		867	979			782	688	157	Period. 1841-50
280	530	1017		877	886			1030	514	155	1851-60
276	576	1133	179	882	904			1040	243	162	1861-70
457	510	600	122	815	55	244	75	940	38	158	1871-80
145	636	335	250	693	8	189	18	748	23	152	1881-90
122	355	441		966	873			1096	108	157	1846
427	795	640		715	1474			1020	52	166	1847
724	511	2131		729	1647			1004	291	158	1848
229	506	943		1030	1125			1683	6196	169	1849
215	422	503		675	875			894	55	140	1850
448	547	541		921	1000			1161	90	154	1851
478	246	1061		648	901			1037	67	151	1852
86	398	820		1084	1064			1077	359	158	1853
277	563	1389		999	1125			1328	4289	164	1854
408	345	1025		957	966			860	58	152	1855
204	569	700		805	1045			929	58	150	1856
59	509	607		959	833			1251	81	156	1857
90	884	1561		1010	716			828	49	160	1858
425	488	1277		639	675			1289	71	150	1859
323	752	726	284 174	744	531			535	18	153	1860
77	377	846		1260	655			973	60	155	1861
128	816	1221		758	1284			643	37	143	1862
687	562	1706		749	988			858	55	151	1863
185	942	1097		819	1278			1018	53	169	1864
214	431	727		980	1074			1242	65	171	1865
457	730	622		973	884			1083	1840	172	1866
436	370	470		738	708			932	78	159	1867
190	625	929		745	786			1309	103	166	1868
87	458	1839		1187	225	337	194	1100	69	170	1869
302	450	1875		607	147	303	177	1184	74	164	1870
2422	437	582		701	118	267	133	1214	68	171	1871
537	505	276		979	52	242	97	1078	54	158	1872
34	637	191		777	82	269	96	1171	43	160	1873
17	490	773		545	91	253	98	934	36	156	1874
13	404	1056		920	37	235	78	944	31	162	1875
207	485	651		771	45	217	57	1010	38	157	1876
710	664	439		505	44	251	54	673	24	146	1877
388	411	495		1227	41	283	54	967	34	164	1878
121	667	717		791	19	229	43	510	14	148	1879
125	402	820		930	20	186	35	989	35	158	1880
619	663	553		516	24	254	35	799	25	148	1881
111	605	519		1212	14	252	24	555	20	151	1882
35	626	514		410	14	247	26	680	21	146	1883
313	575	362		799	8	234	20	988	41	156	1884
357	731	181		624	7	150	20	684	19	148	1885
6	519	172		714	3	154	18	994	34	159	1886
2	716	356		723	5	151	11	937	26	158	1887
2	590	295		728	2	169	9	537	13	146	1888
1	558	190		432	4	130	10	650	15	141	1889
1	773	206		768	2	146	9	658	20	163	1890
2	428	142		680	3	132	10	577	17	155	1891
10	801	274		588	3	102	5	600	20	154	1892
48	384	369		540	1	161	5	796	31	164	1893
22	758	224		482	1	148	3	401	7	143	1894
13	601	189		339	1	140	2	822	17	166	1895

Hampstead until 1847; thus the figures in the above Table do not relate to the same area to the same area as the facts in the other columns.

summaries of 52 or 53 weeks; the numbers for the 44 years 1851-94 relate to calendar years. 52 weeks ending 28th December 1895.

TABLE 15.—Causes of Deaths REGISTERED in London in each of the 11 Years 1885-1895, and in each Quarter of 1895.

YEARS - - -	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895*	1895.			
												QUARTER ENDING			
												Mar. 30	June 29	Sept. 28	Dec. 28
CAUSES OF DEATH.	364	364	364	364	364	371	364	364	364	364	364	91	91	91	91
	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days	Days	Days	Days
ALL CAUSES - - -	† 80704	† 82276	† 82208	† 78849	† 75083	† 91243	† 90216	† 87749	† 91586	† 77039	† 86937	† 28455	† 18398	† 20388	† 19754
Small-pox { Vaccinated - ) { Unvaccinated ) { No statement }	398 503 502	9 8 7	1 1 7	5 - 4	- - -	1 - 3	2 - 3	15 14 12	62 79 65	24 43 22	16 26 13	- 7 3	2 1 9	13 9 1	1 9 1
Measles - - - - -	2928	2078	2894	2401	2314	3291	1807	3393	1661	3293	2633	300	565	753	1015
Scarlet Fever - - -	707	683	1447	1209	784	876	589	829	1596	962	829	141	163	253	269
Typhus - - - - -	28	13	18	10	15	11	8	11	5	5	5	1	1	1	2
Relapsing Fever - -	-	1	-	-	1	-	-	1	-	-	-	-	-	-	-
Induenza - - - - -	3	5	5	3	5	632	2336	2284	1523	750	2156	1682	298	51	125
Whooping-cough - -	2479	2834	2923	2987	1749	3378	2876	2477	2330	2067	1483	511	448	261	293
Diphtheria - - - -	896	846	961	1301	1588	1417	1361	1845	3265	2670	2316	446	446	602	842
Simple & Ul-defined Fever	82	70	48	33	43	33	42	20	21	13	10	3	2	3	2
Enteric Fever - - -	585	618	606	677	588	618	547	486	693	635	614	131	78	155	250
Cholera and Chol. Diarr.	79	137	106	54	62	83	73	87	133	32	74	3	6	61	4
Diarrhoea, Dysentery -	2657	3950	3773	2176	2677	2733	2457	2346	3446	1780	3600	163	316	2655	463
Remittent Fever - -	16	20	14	9	12	7	4	3	2	2	1	-	-	1	-
Hydrophobia - - -	27	9	2	3	7	2	2	-	1	1	-	-	-	-	-
Glanders - - - - -	1	2	4	1	2	1	4	4	3	1	-	-	-	-	-
Cowpox and Vaccination -	7	4	9	4	11	7	14	20	15	9	20	2	3	8	7
Venereal Affections -	543	544	498	516	544	541	472	592	544	499	501	134	126	133	168
Erysipelas - - - -	328	257	341	249	189	250	214	292	424	221	179	37	38	39	65
Pyæmia Septicæmia -	148	134	155	152	106	135	105	110	118	93	102	27	34	20	31
Puerperal Fever - -	323	279	328	275	222	237	222	313	352	210	204	44	52	50	92
Other Zymotic Diseases -	104	70	100	76	81	63	73	88	94	70	79	21	15	15	28
Thrush - - - - -	112	113	80	63	83	77	59	74	48	42	40	3	10	14	13
Worms and other Para- sitic Diseases - - -	17	18	22	14	14	17	15	15	17	17	21	3	8	3	7
Starvation, Want of Breast Milk - - - - -	92	81	77	61	92	73	78	15	155	96	95	28	14	28	25
Alcoholism, Delirium Tre- mens - - - - -	180	220	248	298	386	475	485	483	533	430	449	104	114	120	111
Rheumatic Fever, Rheu- matism of Heart - - -	416	362	418	397	331	445	384	410	517	352	236	75	61	70	80
Rheumatism - - - -	129	104	115	198	131	114	113	117	112	75	80	25	14	21	20
Gout - - - - -	176	139	157	138	164	169	161	157	187	154	169	54	53	59	33
Rickets - - - - -	170	218	180	150	230	282	267	287	248	255	339	80	91	101	67
Cancer - - - - -	2624	2688	2874	2850	2982	3258	3277	3166	3412	3441	3612	892	902	938	880
Tabs Mesenterica - -	1324	1591	1406	1249	1461	142	1477	1208	1269	954	1253	229	235	483	286
Tubercular Meningitis -	1325	1253	1245	1240	1189	1237	1184	1229	1180	1093	1244	313	320	341	270
Phthisis - - - - -	8372	8332	7740	7459	7748	9074	8485	8036	8179	7543	7974	2384	2011	1904	1885
Scrofula, Tuberculosis -	890	954	912	802	846	950	1035	1012	943	980	1045	262	281	261	241
Other Constitutional Dis. -	517	521	542	546	523	505	640	632	679	627	677	205	166	132	164
Premature Birth - - -	1837	1930	1975	1983	2025	2249	2349	2394	2517	2361	2514	662	634	595	603
Atelactasia - - - - -	159	128	138	161	127	113	140	168	179	206	209	60	70	72	47
Congenital Malformations	876	649	652	645	567	948	924	976	888	405	388	114	92	101	81
Old Age - - - - -	2552	2651	2488	2465	2591	2711	2567	2882	2647	2135	2465	912	874	467	515
Apoplexy - - - - -	2149	2123	2038	2236	2078	2313	2306	2206	2200	1990	2052	622	445	465	519
Epilepsy - - - - -	346	369	345	305	360	443	437	395	404	350	370	113	80	95	82
Convulsions - - - - -	2343	2390	2379	2392	2203	2353	2385	2148	2194	1856	2052	553	470	544	485
Other Diseases of Brain, &c.	4313	4462	4465	4394	4154	5003	4675	4222	4554	3911	4162	1353	960	976	873
Diseases of Organs of Special Sense - - -	112	133	98	116	114	144	134	142	132	162	168	36	42	38	52
Diseases of Circulatory System - - - - -	5755	6117	6291	6259	6460	7546	7340	7061	7099	6041	6905	2414	1506	1364	1621

\* For comparison of the numbers in 1895 with the corrected averages for the ten years 1885-94, see Table 16.  
† See note (†), Table 1.



TABLE 15 (cont.)—Causes of Deaths REGISTERED in London in each of the 11 Years 1885-1895; and in each Quarter of 1895.

YEARS	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895*	1895.			
												QUARTER ENDING			
												Mar. 30	June 29	Sept. 28	Dec. 28
CAUSES OF DEATH.	364 Days.	364 Days.	364 Days.	364 Days.	364 Days.	371 Days.	364 Days.	364 Days.	364 Days.	364 Days.	364 Days.	91 Days	91 Days	91 Days	91 Days
Croup - - - -	674	523	597	494	480	491	404	277	217	163	144	43	34	23	44
Bronchitis - - -	10352	11232	10326	10085	8970	12448	13138	11183	10413	7816	10633	3104	1700	864	1965
Pneumonia - - -	4642	4961	4797	4657	4061	6224	6915	6164	7198	5321	5989	2452	1339	906	1292
Pleurisy - - - -	327	261	323	267	239	329	366	305	402	241	200	86	63	49	82
Other Diseases of Respira- tory System - - - }	1563	1587	1535	1493	1311	1694	1668	1450	1524	1097	1436	640	295	133	302
Dentition - - - -	766	693	633	603	545	628	520	479	493	417	426	153	103	90	80
Sore Throat, Quinsy -	98	89	107	102	92	120	92	97	103	81	83	15	22	15	31
Enteritis - - - -	865	518	509	464	570	745	758	773	1106	917	1487	176	183	874	254
Peritonitis - - - -	830	523	338	334	352	372	365	326	393	316	800	71	76	77	76
Diseases of Liver - -	1432	1524	1462	1330	1321	1373	1303	1242	1294	1153	1170	292	278	300	360
Others, Digestive System-	1468	1561	1430	1530	1425	1540	1523	1518	1682	1520	1633	455	363	435	377
Diseases of Lymphatic System and Ductless Glands - - - - }	84	115	95	95	108	129	115	87	134	110	108	30	26	28	24
Diseases of Urinary System	1955	2049	2100	2116	2020	2200	2305	2168	2355	2056	2230	680	437	491	572
Diseases of Generative System - - - - }	273	283	297	270	253	315	280	250	303	237	288	60	83	68	77
Accidents of Childbirth -	182	200	163	169	166	212	286	304	335	266	212	55	44	62	50
Diseases of Locomotive System - - - - }	357	339	345	363	375	392	330	331	262	310	253	89	56	49	59
Diseases of Integumentary System - - - - }	256	273	273	258	217	293	325	334	333	263	303	74	69	66	94
ACCIDENT OR NEGLIGENCE.†	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
By Railways - - - -	-	-	-	-	-	-	125	110	75	81	84	25	19	14	26
By Vehicles or Horses -	-	-	-	-	-	-	244	239	304	255	290	54	77	84	75
In Ships, &c. (not drown- ing) - - - - -	-	-	-	-	-	-	21	30	22	31	37	9	4	6	13
In Building operations -	-	-	-	-	-	-	42	40	41	33	39	4	10	10	15
In Conflagrations - -	-	-	-	-	-	-	20	84	26	26	23	12	3	3	5
By Burns, Scalds, Explo- sions - - - - -	2303	2393	2548	2503	2475	2660	285	323	349	325	357	153	51	52	101
By Drowning - - - -	-	-	-	-	-	-	298	322	342	311	307	45	93	169	60
By Suffocation in Bed -	-	-	-	-	-	-	626	621	574	518	631	200	151	107	164
By Poison or poisonous Vapours - - - -	-	-	-	-	-	-	98	90	104	115	120	25	27	41	27
Other or not stated Causes	-	-	-	-	-	-	954	868	1081	929	962	281	204	245	232
HOMICIDE.‡	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Murder and Manslaughter	62	68	80	76	79	73	67	67	58	58	72	18	17	18	19
SUICIDE.‡	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Suicide - - - - -	345	402	398	400	373	351	430	450	448	464	482	107	127	138	110
EXECUTION.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hanging - - - - -	4	-	2	1	1	4	3	6	1	1	3	-	1	1	1
ALL OTHER CAUSES -	3045	3258	3060	2923	2784	3003	2911	3044	3202	2661	3113	876	600	925	717

\* For comparison of the numbers in 1895 with the corrected averages for the ten years 1885-94, see Table 16.

† The evidence at inquests is often insufficient to enable the coroner to certify whether a violent death resulted from accident, murder, manslaughter, or suicide. All such cases are classed under "accident or negligence."

TABLE 16.—Deaths in several groups of **Ages** and from different **Causes** REGISTERED in **London** during the 52 Weeks of 1895.

CAUSES OF DEATH.	Corrected* Annual Averages, 1885-94.	TOTAL AT ALL AGES.	Under 5 Years.		5 and under 20.	20 and under 40.	40 and under 60.	60 and under 80.	80 and upwds.
			Under 1 Year.	1-5.					
<b>ALL CAUSES†</b>	88,200·4	86,937	22,173	12,922	4,699	10,192	15,397	17,700	3854
Small-pox † { Vaccinated - - - - -	54·5	16	-	1	1	7	8	4	-
Unvaccinated - - - - -	68·6	26	12	7	4	3	-	-	-
No Statement - - - - -	65·8	13	-	-	1	7	3	2	-
Measles - - - - -	2745·1	2633	557	1961	109	3	1	2	-
Scarlet Fever - - - - -	1056·8	829	50	528	227	21	2	1	-
Typhus - - - - -	13·1	5	-	-	2	2	1	-	-
Relapsing Fever - - - - -	0·3	-	-	-	-	-	-	-	-
Influenza - - - - -	795·2	2156	186	116	74	263	543	810	194
Whooping-cough - - - - -	2742·8	1483	619	804	57	2	1	-	-
Diphtheria - - - - -	1705·4	2316	160	1463	643	80	10	5	-
Simple and Ill-defined Fever - - - - -	42·7	10	-	4	2	1	1	1	1
Enteric Fever - - - - -	627·1	614	4	23	183	301	83	15	-
Cholera and Chol. Diarr. - - - - -	89·1	74	48	17	1	2	4	2	-
Diarrhoea, Dysentery - - - - -	1970·0	3600	2772	539	20	17	43	154	55
Remittent Fever - - - - -	0·4	1	-	-	-	1	-	-	-
Hydrophobia - - - - -	3·7	-	-	-	-	-	-	-	-
Glanders - - - - -	2·4	-	-	-	-	-	-	-	-
Cowpox and Vaccination - - - - -	10·5	20	19	1	-	-	-	-	-
Venereal Affections - - - - -	548·1	501	330	33	4	39	69	32	4
Erysipelas - - - - -	291·3	179	55	10	5	14	33	46	16
Pyæmia, Septicæmia - - - - -	132·6	102	15	9	14	32	21	6	1
Puerperal Fever - - - - -	290·8	208	-	-	7	185	16	-	-
Other Zymotic Diseases - - - - -	36·3	79	19	19	3	17	12	10	-
Thrush - - - - -	78·6	40	40	-	-	-	-	-	-
Worms & other Parasitic Diseases - - - - -	17·5	21	-	3	3	6	5	4	-
Starvation, Want of Breast-milk - - - - -	98·0	95	81	8	-	2	7	2	-
Alcoholism, Delirium Tremens - - - - -	393·8	449	-	-	-	162	230	66	1
Rheumatic Fever, Rheumatism of } Heart - - - - -	424·7	286	1	7	90	94	67	24	3
Rheumatism - - - - -	117·8	80	1	-	-	7	18	43	6
Gout - - - - -	163·8	169	-	-	-	2	58	97	12
Rickets - - - - -	249·3	339	122	215	2	-	-	-	-
Cancer - - - - -	3 21·1	3612	1	16	30	351	1615	1486	113
Tabes Mesenterica - - - - -	1371·6	1253	765	346	79	44	17	2	-
Tubercular Meningitis - - - - -	1281·4	1244	416	591	186	38	11	2	-
Phthisis - - - - -	8529·1	7974	98	173	654	3692	2781	573	3
Scrofula, Tuberculosis - - - - -	993·4	1045	316	293	195	139	30	21	1
Other Constitutional Diseases - - - - -	615·8	677	28	32	56	129	194	223	15
Premature Birth - - - - -	2372·7	2514	2514	-	-	-	-	-	-
Atelectasis - - - - -	158·0	209	209	-	-	-	-	-	-
Congenital Malformations - - - - -	386·8	383	349	22	13	3	1	-	-
Old Age - - - - -	2652·3	2463	-	-	-	-	6	1162	1300
Apoplexy - - - - -	2280·5	2052	23	13	14	112	623	1089	178
Epilepsy - - - - -	401·8	370	8	8	50	114	107	76	7
Convulsions - - - - -	2385·2	2052	1816	220	9	4	1	1	1
Other Diseases of Brain, &c. - - - - -	4648·1	4162	530	514	238	497	858	1311	214
Diseases of Organs of Special Sense - - - - -	141·4	163	39	32	50	28	12	6	1
Diseases of Circulatory System - - - - -	6949·0	6905	149	75	385	948	2186	2874	338

\* The annual averages have been raised for increase of population, and reduced for comparison with the deaths recorded in the 52 weeks of 1895. For the population in each group of ages, estimated to the middle of 1895, see Table 21.

† Those cases of small-pox only are returned as "Vaccinated" or as "Unvaccinated" which are so certified by registered medical men. When the medical attendant does not certify that the deceased has, or has not, been vaccinated, or when the cause of death is not certified by a registered practitioner, the case is returned under the heading "No Statement."

‡ See note † Table 1.



TABLE 16 (continued).—Deaths in several groups of **Ages** and from different **Causes** REGISTERED in **London** during the 52 Weeks of 1895.

CAUSES OF DEATH.	Corrected* Annual Averages, 1885-94.	TOTAL AT ALL AGES.	Under 5 Years.		5 and under 20.	20 and under 40.	40 and under 60.	60 and under 80.	80 and upwds.
			Under 1 Year.	1-5.					
Croup - - - - -	453·4	144	27	100	17	-	-	-	-
Bronchitis - - - - -	11167·1	10633	2421	1429	77	280	1640	3902	884
Pneumonia - - - - -	5755·7	5989	1539	1816	251	578	884	812	109
Pleurisy - - - - -	322·3	280	14	49	28	57	81	49	2
Other Diseases of Respiratory System	1571·9	1486	395	199	43	93	335	398	58
Dentition - - - - -	607·5	426	235	191	-	-	-	-	-
Sore Throat, Quinsy - - - - -	106·2	83	12	35	20	3	9	3	1
Enteritis - - - - -	708·7	1487	958	221	67	62	88	80	11
Peritonitis - - - - -	383·3	300	22	19	74	77	51	50	7
Diseases of Liver - - - - -	1415·3	1170	113	9	16	122	521	360	29
Others, Digestive System - - - - -	1600·8	1633	388	94	102	232	351	405	61
Diseases of Lymphatics, &c. - - - - -	113·9	1·8	9	6	19	30	11	20	3
Diseases of Urinary System - - - - -	2247·2	2230	16	47	60	347	7·8	819	93
Diseases of Generative System - - - - -	292·9	283	11	2	9	102	109	49	6
Accidents of Childbirth - - - - -	240·5	212	-	-	8	175	29	-	-
Diseases of Locomotive System - - - - -	364·4	253	24	35	65	47	43	35	5
Diseases of Integumentary System - - - - -	297·6	303	103	20	8	21	52	68	26
VIOLENT DEATHS.†									
(ACCIDENT.)									
By Railways - - - - -	2728·7	84	-	-	11	39	24	9	1
By Vehicles or Horses - - - - -		290	5	49	67	61	64	46	8
In Ships, Boats, Docks (exclusive of Drowning) - - - - -		57	-	-	5	17	9	6	-
In Building Operations - - - - -		39	-	-	1	15	19	4	-
In Conflagrations - - - - -		23	-	5	4	7	2	3	2
By Burns, Scalds, Explosions - - - - -		357	26	182	66	26	29	22	6
By Drowning - - - - -		307	12	6	94	97	75	23	-
By Suffocation in Bed - - - - -		631	610	12	1	4	4	-	-
By Poisons or Poisonous Vapours - - - - -		129	2	14	10	35	43	16	-
Other or not stated Causes - - - - -		962	186	104	93	133	116	197	58
(VIOLENCE OTHER THAN ACCIDENTAL.)									
Homicide - - - - -	72·5	72	33	6	7	16	8	2	-
Suicide - - - - -	427·8	482	-	-	23	189	188	79	3
Execution - - - - -	2·4	3	-	-	-	2	1	-	-
OTHER CAUSES - - - - -	3·55·1	3118	2795	164	8	16	62	68	17

\* See note \* on preceding page.

† The evidence at inquests is often insufficient to enable the coroner to certify whether a violent death resulted from accident, murder, manslaughter, or suicide. All such cases are classed under "accident or negligence."

TABLE 17.—Deaths REGISTERED in the London Registration Districts, and Mean Temperature Registered Sunshine at Greenwich, in each of the 11 Years 1885-1895.

REGISTRATION DISTRICTS.	AREA in Acres.*	DENSITY, Persons to an Acre, 1891.	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894
Mean Temperature - - -	—	—	48°·6	48°·7	47°·8	47°·7	48°·8	49°·6	49°·4	48°·1	51°·1	49°·0
Registered Sunshine in Hours -	—	—	1261	1228	1401	1068	1156	1255	1222	1277	1454	1052
<b>LONDON</b> - - -	74,672	56	80,978	82,691	82,443	79,244	76,162	89,268	90,595	88,440	91,552	77,483
1a PADDINGTON - - -	1256	94	2040	2062	2023	2152	1925	2276	2347	2311	2280	1925
1b KENSINGTON - - -	2188	76	3193	3101	3126	3083	2710	3309	3634	3303	3223	2983
2 FULHAM - - -	3937	47	2761	2781	3201	3207	3183	3632	3644	3895	3886	3630
3 CHELSEA - - -	794	121	2208	2144	2188	1997	1981	2064	2232	2173	2127	1735
4 ST. GEO. HANOVER SQ. -	1940	69	2916	3103	2923	2855	2713	3090	2984	2821	2774	2367
5 WESTMINSTER - - -	216	173	772	788	734	634	692	691	612	567	578	467
6 MARYLEBONE - - -	1506	95	2853	2880	2957	2806	2363	2797	2334	2689	2651	2226
7 HAMPS TEAD - - -	2248	30	770	774	771	778	835	1064	1019	1173	1452	1328
8 PANCRAS - - -	2872	88	5005	5058	5085	4732	4664	5166	5384	5243	5203	4252
9 ISLINGTON - - -	3109	103	5729	5510	5756	5306	5093	5962	6326	5983	6317	5111
10 HACKNEY - - -	3937	58	3793	3789	3347	3823	3613	4399	4417	4309	4757	3836
11 ST. GILES - - -	244	163	890	894	870	694	704	821	893	733	710	603
12 STRAND - - -	403	63	947	989	912	923	885	910	1052	929	962	822
13 HOLBORN - - -	311	175	2897	2964	3004	2937	2530	3088	3282	2984	3096	2299
14 LONDON CITY - - -	672	57	1422	1343	1364	1303	1177	1380	1295	1191	1388	1058
15 SHOREDITCH - - -	648	191	2950	3216	3071	2962	2635	3248	3192	2939	3196	2569
16 BETHNAL GREEN - - -	755	171	2807	3000	2845	2852	2620	2876	3107	2824	3034	2411
17 WHITECHAPEL - - -	379	196	2084	2261	2249	2181	2176	2492	2437	2555	2683	2332
18 ST. GEO.-IN-THE-EAST -	244	188	1287	1187	1161	1120	1018	1309	1102	1026	1153	952
19 STEPNEY - - -	465	123	1297	1317	1333	1354	1266	1500	1320	1375	1396	1206
20 MILE END OLD TOWN -	677	159	2091	2142	2129	1987	1948	2263	2070	2250	2166	1960
21 POPLAR - - -	2333	71	3569	3617	3521	3521	3274	3989	3770	3872	3925	3384
22 ST. SAVIOUR SOUTHWARK -	1119	181	4229	4555	4469	3597	3797	4171	4187	3939	4075	3306
23 ST. OLAVE SOUTHWARK -	1506	91	3031	3397	3359	3163	3109	3461	3552	3369	3461	2983
24 LAMBETH - - -	3941	70	5212	5481	5430	5182	5165	5819	6055	5841	6165	5226
25 WANDSWORTH - - -	11454	27	4202	4424	4317	4330	3973	4905	4787	5016	5093	4492
26 CAMBERWELL - - -	4450	53	3765	3995	4140	4187	4193	4624	4376	4984	5024	4307
27 GREENWICH - - -	3425	48	3059	3005	3117	3017	3065	3320	3498	3482	3692	2082
28 LEWISHAM - - -	10793	9	1129	1175	1176	1216	1123	1254	1326	1370	1384	1293
29 WOOLWICH - - -	6500	17	1534	1711	1645	1559	1717	1906	2013	1812	1971	1585
METROPOLITAN HOSPITALS } AND ASYLUMS OUTSIDE } REGISTRATION LONDON †	—	—	536	28	20	27	14	1482	1283	1482	1725	1759

NOTE. — This Table is compiled from the Abstracts which appear in the Registrar General's Annual Reports, excepting for the years for which the numbers are derived from the Weekly Returns embracing 52 weeks.

\* For area of Greater London see Table 9.

† For the years 1884-89 the figures refer to the Metropolitan Asylum Small-pox and Fever Hospitals only; for the years 1890-1894 London County, and Metropolitan Lunatic and Imbecile Asylums are added.



**18.—LONDON.** POPULATION; and BIRTHS and DEATHS in REGISTRATION DISTRICTS during the 52 Weeks of 1895.

REGISTRATION DISTRICTS.		Enumerated Population, 1891.	Total Births in 52 Weeks.	Total Deaths in 52 Weeks.	The DEATHS registered in the 52 Weeks include																Inquest Cases.	Deaths in Public Institutions.	Uncertified Causes of Death.
					Deaths of		Deaths from																
							Infants under 1 Year of Age.	Persons aged 40 Years and upwards.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus Fever.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Dysentery.	Cholera.	Violence.				
LONDON - -	4211743	133715	86,937	22173	21554	55	2633	829	2316	1483	5	614	10	3600	74	3407	7516	23282	633				
TOWN DISTRICTS	740735	19777	14312	3394	4036	1	185	106	328	239	-	84	4	601	7	539	1195	4079	27				
CITY DISTRICTS	993884	29835	13840	4538	4915	2	540	237	612	294	3	160	3	765	7	681	1499	4709	23				
RURAL DISTRICTS	247538	6972	5577	1355	1093	-	274	14	104	92	1	54	-	190	5	331	644	1919	28				
WEST DISTRICTS - -	703114	26335	16615	4746	3549	1	800	76	409	319	-	99	-	730	16	763	2163	4827	6				
EAST DISTRICTS	1524472	50596	29958	8103	7446	4	829	291	837	538	1	216	3	1306	39	1086	2015	6113	549				
POLITAN HOSPITALS ) ASYLUMS OUTSIDE ) REGISTRATION LONDON )	-	-	1635	17	515	47	5	105	6	1	-	1	-	8	-	4	10	1635	-				
WEST DISTRICTS.																							
ADDINGTON - -	117846	2977	2249	495	691	-	19	1	38	21	-	13	-	92	1	125	223	554	3				
ADDINGTON - -	166908	3619	3064	617	1025	-	35	14	59	33	-	15	2	121	1	75	204	1033	2				
ADDINGTON - -	188878	6859	8948	1210	898	-	81	77	170	91	-	29	1	214	2	145	333	806	7				
ADDINGTON - -	96253	2734	2002	500	435	-	10	9	26	31	-	9	-	90	1	49	133	634	3				
GEO. HANOVER SQ.	134138	2756	2547	452	789	1	36	4	51	43	-	14	1	73	-	123	246	633	5				
ADDINGTON - -	37312	852	502	121	148	-	4	1	4	11	-	4	-	10	2	22	46	119	7				
WEST DISTRICTS.																							
ADDINGTON - -	142404	4400	2484	621	663	2	24	2	21	89	-	23	-	99	-	97	222	542	5				
ADDINGTON - -	68416	1453	1259	293	292	-	11	76	180	7	-	23	1	28	1	31	52	470	7				
ADDINGTON - -	234379	7118	4896	1237	1185	-	223	12	90	93	-	32	-	211	-	227	449	1496	7				
ADDINGTON - -	319143	9879	5732	1412	1385	-	140	32	85	82	1	24	2	216	1	175	409	1169	1				
ADDINGTON - -	229542	6885	4469	1055	1190	-	137	115	236	70	2	58	-	211	5	154	387	1032	3				
RURAL DISTRICTS.																							
ADDINGTON - -	39782	1120	715	167	208	-	12	2	2	13	-	1	-	27	-	27	62	190	1				
ADDINGTON - -	27516	491	913	137	200	-	7	1	23	8	-	21	-	12	-	67	110	570	4				
ADDINGTON - -	141920	4808	2817	910	453	-	239	10	46	63	1	12	-	133	4	122	296	462	13				
ADDINGTON CITY	38320	553	1132	141	232	-	16	1	33	8	-	20	-	18	1	115	176	697	10				
WEST DISTRICTS.																							
ADDINGTON - -	124009	4352	2954	887	714	-	106	15	44	82	-	11	-	153	1	94	282	813	2				
ADDINGTON - -	129132	4771	2564	740	564	-	112	13	58	34	-	11	-	137	4	92	297	623	-				
ADDINGTON - -	74462	3130	2542	548	397	1	90	6	94	20	-	38	-	53	2	203	410	1497	-				
GEO. IN-THE-EAST	45795	1972	1091	346	267	-	85	5	19	20	-	4	-	54	-	40	145	281	1				
ADDINGTON - -	57376	2035	1350	473	166	-	60	3	32	42	-	7	-	63	-	74	212	259	1				
ADDINGTON - -	107592	4204	2185	641	605	-	105	14	62	40	-	7	-	112	3	62	228	389	1				
ADDINGTON - -	166748	6071	3929	1111	896	-	222	20	100	81	-	21	-	150	6	195	573	960	1				
WEST DISTRICTS.																							
ADDINGTON - -	202693	7252	3971	1401	665	-	192	7	46	127	-	14	1	196	5	121	301	298	79				
ADDINGTON - -	138660	4944	3226	818	647	3	134	9	28	35	-	15	-	131	-	201	329	963	87				
ADDINGTON - -	276203	9341	5857	1470	1503	-	158	91	197	131	-	42	2	237	13	234	421	1511	95				
ADDINGTON - -	307500	9985	5382	1510	1444	-	129	74	206	74	1	32	-	245	12	176	373	754	34				
ADDINGTON - -	235314	7523	4921	1250	1369	-	112	16	99	71	-	26	-	206	5	121	264	1235	65				
ADDINGTON - -	165413	5475	3869	814	833	-	50	79	223	55	-	58	-	113	4	113	163	882	37				
ADDINGTON - -	94335	2476	1449	346	523	-	26	4	14	36	-	10	-	65	-	43	59	215	37				
ADDINGTON - -	107324	3595	1783	494	437	1	33	11	34	9	-	19	-	78	-	77	115	255	65				
POLITAN HOSPITALS ) ASYLUMS OUTSIDE ) REGISTRATION LONDON )	-	-	1635	17	515	47	5	105	6	1	-	1	-	8	-	4	10	1635	-				

TABLE 19. LONDON.—POPULATION; and BIRTHS and DEATHS in REGISTRATION SUB-DISTRICTS during the 52 Weeks of 1895.

REGISTRATION SUB-DISTRICTS.		Enumerated Population, 1891.	Total Births in 52 Weeks.	Total Deaths in 52 Weeks.	The DEATHS registered in the 52 Weeks include														Inquest Cases.	Deaths in Public Institutions.	
					Deaths of		Deaths from														
							Infants under 1 Year of Age.	Persons aged 60 Years and upwards.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Typhus Fever.	Enteric (or Typhoid) Fever.	Simple con- tinued Fever.	Diarrhoea.	Cholera.			Violence.
WEST DISTRICTS.																					
St. Mary Paddington	WHH	-	84159	2526	1553	429	487	-	18	1	56	13	-	-	82	1	61	126	222		
St. John Paddington	H	-	33657	451	696	66	204	-	1	-	12	2	-	9	11	-	64	102	332		
Kensington Town	Ww	-	118751	8062	2544	557	872	-	34	13	29	31	-	10	104	1	58	163	931		
Brompton	HH	-	47557	567	520	60	153	-	1	1	10	7	-	3	17	-	19	36	102		
St. Peter Hammersmith	-	-	8586	215	127	34	36	-	1	-	-	3	-	-	3	-	5	11	-		
St. Paul Hammersmith	H	-	88653	2694	1485	436	589	-	26	7	23	37	-	10	81	-	79	151	165		
Fulham	Ww	-	91639	8930	2336	740	473	-	54	70	145	51	-	19	130	2	61	171	641		
Chelsea Kensal Town	-	-	21787	695	283	117	45	-	1	3	2	15	-	2	26	1	5	22	-		
Chelsea North	WHHHH	-	41637	1188	1039	188	296	-	4	1	10	14	-	4	38	-	19	59	491		
Chelsea South	HH	-	32829	851	655	195	144	-	5	5	14	6	-	3	31	-	25	57	143		
Mayfair	WH	-	23733	262	555	33	293	1	-	-	3	1	-	-	-	-	25	39	378		
Belgrave	WHHH	-	54631	1210	1116	191	238	-	10	3	23	27	-	11	27	-	62	119	404		
St. John Westminster	HH	-	34106	961	512	180	107	-	19	1	2	11	-	-	32	-	19	51	14		
St. Margaret Westminster	H	-	21668	323	364	48	96	-	7	-	13	4	-	3	9	-	17	37	137		
St. James Westminster	WHHH	-	24995	542	341	74	122	-	1	1	1	10	-	2	7	1	19	34	87		
St. Anne Soho	HHHHH	-	12317	310	161	46	26	-	3	-	3	1	-	-	3	1	3	12	32		
NORTH DISTRICTS.																					
All Souls Myleb	HHHHHHHHH	-	37713	692	817	119	194	-	16	1	5	9	-	13	16	-	39	71	382		
Rectory Marylebone	WH	-	20044	501	317	76	126	-	1	1	1	3	-	-	10	-	7	21	88		
St. Mary Marylebone	HHHH	-	19239	1487	376	127	98	-	2	-	2	9	-	2	30	-	7	25	87		
Christchurch Marylebone	H	-	38337	863	598	159	115	2	1	-	7	7	-	6	24	-	20	63	1		
St. John Marylebone	HH	-	32101	855	466	140	130	-	4	-	6	11	-	2	19	-	24	52	4		
Hampstead	WvHHHHH	-	68416	1453	1259	203	292	-	11	76	180	7	-	23	28	1	31	62	470		
Regent's Park	HH	-	36590	1021	541	164	138	-	15	2	4	19	-	3	21	-	25	62	41		
Tottenham Court	vHHH	-	28321	640	810	129	163	-	16	3	26	6	-	10	16	-	42	73	494		
Gray's Inn Lane	HHH	-	27435	909	603	188	105	-	18	1	11	21	-	8	35	-	43	72	153		
Somers Town	HH	-	32829	1023	629	190	99	-	46	3	9	24	-	4	51	-	29	51	112		
Camden Town	WH	-	15419	665	648	134	270	-	41	-	2	6	-	2	17	-	45	90	406		
Kensish Town	WW	-	95765	2860	1657	432	407	-	32	3	58	20	-	6	71	-	43	101	281		
Upper Holloway	WWWvHHH	-	90285	2779	2375	456	744	-	92	5	34	19	1	10	87	-	65	128	1140		
Islington South-west	H	-	105537	3475	1617	501	346	-	65	17	30	36	-	3	84	1	53	144	16		
Islington South-east	-	-	64158	2004	962	258	241	-	32	6	9	17	-	5	74	-	33	92	-		
Highbury	Hu	-	59193	1621	778	197	254	-	11	4	12	10	-	6	24	-	19	45	13		
Stoke Newington	H	-	30386	813	441	88	179	-	7	1	4	5	-	3	15	-	13	42	9		
Stamford Hill	-	-	17759	362	212	54	67	-	3	-	4	3	-	-	6	-	10	16	-		
West Hackney	H	-	42602	1215	777	193	213	-	27	-	20	13	-	10	34	-	35	68	121		
Hackney WvWH	-	-	90486	3191	2353	515	561	-	63	113	194	36	-	36	102	4	76	171	907		
South Hackney	vH	-	41769	1404	636	235	170	-	32	1	14	13	-	7	52	1	20	70	2		
CENTRAL DISTRICTS.																					
St. George Bloomsbury	-	-	16695	323	197	50	49	-	4	-	-	7	-	1	5	-	9	19	-		
St. Giles South	WH	-	13454	572	347	76	123	-	5	1	1	2	-	-	12	-	12	29	151		
St. Giles North	H	-	9633	225	171	41	36	-	3	1	1	4	-	-	10	-	6	14	39		
St. Martin-in-the-Fields	HH	-	14616	199	367	61	59	-	4	1	15	7	-	10	4	-	36	55	201		
St. Mary-le-Strand	H	-	5706	124	81	16	25	-	2	-	2	-	-	1	2	-	4	6	10		
St. Clement Danes	WH	-	7194	178	369	52	58	-	1	-	6	1	-	10	5	-	26	45	263		
Strand Union Work., Edmonton	-	-	-	-	96	8	58	-	-	-	-	-	-	-	1	-	1	4	96		
St. Geo. the Martyr	HHHHHH	-	17921	436	537	147	79	-	20	-	23	6	-	-	13	-	16	38	535		
St. Andrew Eastern	WH	-	16343	385	244	81	70	-	19	1	1	3	-	-	13	1	10	21	1		
St. James Clerkenwell	-	-	16803	488	266	104	41	-	15	1	3	7	-	-	12	1	14	36	-		
Anwell Clerkenwell	-	-	16833	509	262	80	48	-	35	1	2	11	-	1	12	-	14	27	-		
Pentonville	-	-	17155	449	259	93	27	-	23	2	7	10	1	-	11	-	14	36	-		
Goswell Street	-	-	15875	537	253	74	54	-	14	3	5	6	-	6	13	-	11	25	-		
City Road	HHHL	-	29177	1561	708	257	98	-	83	1	5	14	-	3	48	1	31	79	89		
Whitcross Street	-	-	8278	254	142	45	20	-	15	1	-	1	-	1	9	-	6	18	-		
Finsbury	-	-	4995	89	58	20	11	-	5	-	-	5	-	1	2	-	6	13	-		
Holborn Union Work., Mitcham	-	-	-	-	38	-	25	-	-	-	-	-	-	-	-	-	-	-	38		
St. Botolph	H	-	8944	195	114	26	34	-	6	1	1	1	-	1	4	-	6	14	2		
Cripplegate	-	-	4539	48	37	8	15	-	1	-	-	1	-	-	2	-	5	-	-		
St. Sepulchre	H	-	4444	69	737	74	103	-	3	-	31	5	-	18	12	1	85	123	666		
St. Bride	W	-	6594	94	58	10	19	-	2	-	-	-	-	-	-	-	1	6	1		
Allhallows Barking	-	-	10422	112	121	17	38	-	8	-	-	1	-	1	-	-	19	25	-		
Broad Street	H	-	3377	35	40	6	13	-	1	-	1	-	-	-	2	-	1	2	3		
City of London Asylum, Stone	-	-	-	-	25	-	10	-	-	-	-	-	-	-	-	-	1	1	25		

Note.—The letters placed against the names of the sub-districts denote Public Institutions situated therein, namely:—*W*—Workhouse; *w*—Workhouse Establishment receiving inmates from other Districts than that in which it stands; *H*—Hospital; *L*—Lunatic Asylum; *I*—Private Lunatic Asylum in which paupers are received. For detailed list of the several Institutions, see Table 22.



TABLE 19 (continued).—LONDON.—POPULATION; and BIRTHS and DEATHS in REGISTRATION SUB-DISTRICTS, during the 52 Weeks of 1895.

[illegible]

TABLE 20.—OUTER RING (excluding Deaths of Londoners in Metropolitan Workhouses, Hospitals, and Asylums).  
—AREA; POPULATION; BIRTHS AND DEATHS REGISTERED during the 52 Weeks of 1895.

District and Sub-district Numbers.	REGISTRATION SUB-DISTRICTS.	Area in Acres	Enumerated Population, 1891.	BIRTHS.	DEATHS.	The DEATHS registered in the 52 Weeks include																	
						Deaths of		Deaths from															
						Infants under 1 Year of Age.	Persons aged 60 Years & upwds.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhoea.	Cholera.	Violence.	Inquest Cases.	Deaths in Public Institutions.	Unrecorded Causes of Death.				
LONDON—OUTER RING						368,749	1,422,063	47,590	24,031	6733	6808	11	626	165	727	319	241	1184	62	734	1362	2234	454
30:1	Carshalton <i>wHH</i> -	12228	26108	623	262	62	88	-	3	-	2	1	1	6	-	13	13	1	-	-	-	-	-
2	Epsom, part of * <i>WwH</i>	10421	12303	287	192	26	82	-	1	-	2	-	1	3	-	4	8	57	4	-	-	-	-
37:1	Godstone, part of * <i>W</i>	2754	1598	48	26	8	7	-	-	-	-	-	-	-	-	1	3	3	-	-	-	-	-
38:1	Croydon <i>WwHHH</i> -	20851	128399	3487	2002	471	717	-	20	4	27	34	16	72	2	63	170	270	-	-	-	-	-
2	Mitcham <i>w</i> -	11697	23088	616	285	77	95	-	-	2	6	1	3	15	-	6	17	2	11	-	-	-	-
30:1	Wimbledon <i>HHH</i> -	8220	23761	854	578	101	101	-	2	-	18	9	1	15	-	9	17	17	1	-	-	-	-
2	Kingston <i>WH</i> -	8071	44765	1231	721	189	259	-	6	-	5	8	3	16	-	21	44	123	5	-	-	-	-
3	Esher, part of * <i>HH</i> -	6601	12059	355	165	40	51	-	-	-	5	3	1	2	-	4	11	3	2	-	-	-	-
4	Hampton <i>H</i> -	4565	13252	475	287	74	91	-	1	1	12	1	-	10	-	9	14	5	6	-	-	-	-
40:1	Richmond <i>WH</i> -	2169	25339	579	405	68	170	-	2	3	-	-	8	9	-	24	33	72	2	-	-	-	-
2	Mortlake <i>H</i> -	2823	16159	442	250	58	83	-	3	1	10	3	2	10	-	17	31	10	2	-	-	-	-
41:1	Bromley <i>HHH</i> -	9127	23815	647	231	67	92	-	2	5	13	2	2	19	-	10	13	34	9	-	-	-	-
2	Beckenham <i>H</i> -	6542	21969	540	256	64	79	-	3	2	3	7	-	3	-	4	7	7	9	-	-	-	-
3	Chislehurst, pt. of * <i>WHH</i>	14307	20372	873	321	71	108	-	-	2	3	5	-	17	-	4	8	75	5	-	-	-	-
42:1	Bexley <i>HH</i> -	12540	30590	1027	444	113	144	-	2	-	3	5	3	35	1	23	27	6	21	-	-	-	-
2	Dartford Work., pt. of *	-	-	4	41	2	27	-	3	-	-	-	-	-	-	1	1	41	-	-	-	-	-
124:1	Sunbury <i>w</i> -	11054	13671	434	229	66	76	-	7	1	8	7	2	5	-	9	10	2	6	-	-	-	-
2	Staines <i>WH</i> -	13277	13221	415	225	54	89	-	1	3	-	3	4	9	1	4	7	50	2	-	-	-	-
125:1	Hillingdon <i>WHH</i> -	6085	12237	384	217	39	99	-	9	4	3	4	1	5	-	8	6	51	7	-	-	-	-
2	Uxbridge -	6172	5417	131	107	26	33	-	-	-	-	5	1	2	-	6	6	-	-	-	-	-	-
3	Hayes <i>wH</i> -	14537	12618	525	158	42	59	-	3	-	3	1	2	3	-	8	11	1	11	-	-	-	-
126:1	Isleworth <i>WHH</i> -	6967	26273	845	554	117	195	-	17	10	14	1	6	23	-	7	17	119	6	-	-	-	-
2	Twickenham <i>HH</i> -	2415	16027	452	234	63	29	-	3	-	2	-	-	15	-	6	11	7	1	-	-	-	-
3	Brentford <i>HHHH</i> -	4318	37777	1102	578	142	203	-	2	-	11	7	7	22	1	22	33	21	7	-	-	-	-
4	Chiswick -	1245	21963	692	380	111	100	-	10	2	5	1	2	28	-	13	21	-	5	-	-	-	-
5	Acton <i>wH</i> -	6132	30945	1076	527	174	138	-	6	3	8	7	2	33	10	14	19	7	4	-	-	-	-
127:1	Harrow <i>HHH</i> -	13809	15715	458	193	50	64	-	1	-	1	1	1	5	-	6	10	11	2	-	-	-	-
2	Edgware <i>HH</i> -	6994	3844	96	69	11	18	-	2	-	3	1	-	-	-	2	4	-	-	-	-	-	-
3	Willesden <i>HHH</i> -	4383	61205	2445	1068	366	250	-	6	15	37	11	14	62	2	28	55	54	20	-	-	-	-
4	Hendon <i>WH</i> -	8382	15843	552	296	76	91	-	1	-	2	-	-	9	-	12	27	93	-	-	-	-	-
128:1	South Mimms <i>H</i> -	15599	8474	277	140	38	55	-	1	-	5	2	1	3	-	5	8	3	3	-	-	-	-
2	Barnet <i>WHH</i> -	5441	11778	301	198	39	72	-	1	3	1	6	1	8	-	6	8	38	2	-	-	-	-
3	Finchley <i>HHH</i> -	4688	25820	671	292	68	95	-	1	-	1	11	2	6	-	8	21	12	-	-	-	-	-
129:1	Hornsey <i>HH</i> -	3089	61097	1686	766	191	231	-	16	3	34	13	8	39	1	18	41	7	-	-	-	-	-
2	Tottenham <i>H</i> -	4642	97174	3490	1556	514	334	-	57	7	36	20	16	101	10	72	178	85	12	-	-	-	-
3	Edmonton <i>WwH</i> -	7489	38351	1381	672	198	203	-	7	5	14	9	8	54	1	12	46	151	1	-	-	-	-
4	Enfield <i>B WHH</i> -	12639	31803	1097	456	115	136	-	4	9	16	5	11	31	1	19	37	50	7	-	-	-	-
5	Waltham Abbey -	11017	6066	170	97	21	32	-	-	-	10	2	-	2	-	3	3	-	4	-	-	-	-
6	Cheshunt <i>H</i> -	8480	9920	334	136	47	40	-	1	-	6	1	2	15	1	3	6	2	6	-	-	-	-
135:1	Hatfield, part of * <i>W</i> -	3306	582	21	9	1	5	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
137:1	Bushey <i>H</i> -	9331	7737	207	119	25	35	-	13	-	3	-	-	8	-	3	5	4	-	-	-	-	-
2	Watford Work., pt. of *	-	-	1	8	-	-	-	-	-	-	1	-	-	-	-	-	-	7	-	-	-	-
136:1	Stratford <i>H</i> -	1100	49983	1717	853	230	183	-	21	8	27	7	16	3	1	47	63	58	8	-	-	-	-
2	Plaistow <i>WH</i> -	1242	58080	2693	1235	475	189	-	101	12	69	19	14	63	5	23	50	4	47	-	-	-	-
3	Canning Town <i>H</i> -	1558	54750	2479	1184	429	119	-	84	19	54	15	15	67	4	46	70	29	40	-	-	-	-
4	Forest Gate <i>w</i> -	806	49140	1652	767	235	173	-	15	3	37	15	16	37	-	14	29	-	22	-	-	-	-
5	East Ham <i>wH</i> -	3266	32713	1332	700	236	125	-	5	8	46	2	7	52	6	12	18	5	24	-	-	-	-
6	Leyton <i>WwWH</i> -	4334	70188	2441	1619	392	507	-	53	12	77	25	14	73	8	27	37	480	68	-	-	-	-
7	Walthamstow <i>HHL</i> -	6501	37390	2323	1077	343	203	-	92	7	39	14	15	65	6	28	40	28	34	-	-	-	-
137:1	Chigwell, part of * <i>H</i> -	11779	12941	352	213	46	62	-	16	-	11	-	3	13	-	10	15	6	8	-	-	-	-
2	Epping Work., pt. of *	-	-	1	8	-	4	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-
139:1	Romford, part of * <i>W</i> -	6556	4324	182	115	19	33	-	2	1	13	-	2	7	-	7	9	19	2	-	-	-	-
2	Ilford -	8493	10913	449	183	56	47	-	1	-	2	1	2	14	1	3	7	-	6	-	-	-	-
3	Barking Town <i>H</i> -	3514	14301	698	288	114	39	-	13	2	9	23	3	39	-	8	10	2	9	-	-	-	-
	Met. Asylum Hospitals	-	-	-	-	50	1	-	8	1	8	10	-	2	-	1	1	30	1	-	-	-	-
	Highgate Sm.-pox Hosp.	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	Middlesex Co. Lun. Asy.	-	-	-	-	57	-	-	-	-	-	-	-	-	-	-	-	57	-	-	-	-	-
	London Co. Lunatic Asy.	-	-	-	-	23	-	-	-	-	-	-	-	1	-	1	1	23	-	-	-	-	-

\* The parts of sub-districts included within that portion of the Metropolitan Police District which forms the Outer Ring are as follow:—  
 20:2, Epsom sub-district, except the parish of Ashstead (pop. 1351); 37:1, the parishes of Warringham and Farley in Godstone sub-district;  
 39:3, Esher sub-district, except the parish of Esher (pop. 2282); 41:3, Chislehurst sub-district, except the parishes of Chisleigh, Cudham  
 and Knockholt (pop. 3097); 135:1, the parish of Northaw in Hatfield sub-district; 137:1, Chigwell sub-district, except the parish of Theydon  
 Bois (pop. 1079); 139:1, the parish of Dagenham in Romford sub-district; also deaths in Workhouses belonging to the Outer Ring in 42:2; Dartford,  
 137:2, Watford, and 137:2, Epping, sub-districts.



TABLE 21.—Temperature at Greenwich; Population; Total Deaths, and Deaths at Seven groups of Ages, in London, in each Week of 1895.

POPULATION estimated to the middle of 1895					4,392,346	113,520	9,614	1,342,608	1,487,626	757,605	263,277	18,096
Number of Week.	WEEK ENDING	TEMPERATURE.			AGES AT DEATH.							
		Mean.	Highest Reading.	Lowest Reading.	ALL AGES.	Under 1 Year.	1-5	5-20	20-40	40-60	60-80	80 and upwards.
	YEAR (of 52 Weeks)	° 49°·3	° 87°·3	° 6°·9	86,937	22,173	12,022	4,699	10,192	15,397	17,700	3,854
	First Quarter (13 Weeks).	35°·2	63°·0	6°·9	28,455	5,669	3,430	1,187	3,169	5,549	7,654	1,797
	Second (13 Weeks).	55°·1	86°·2	31°·4	18,338	4,425	2,886	1,043	2,334	3,322	3,618	710
	Third (13 Weeks).	62°·3	87°·3	41°·2	20,388	7,365	3,107	1,182	2,220	3,027	2,912	575
	Fourth (13 Weeks).	44°·7	78°·0	25°·5	19,756	4,714	3,499	1,287	2,469	3,499	3,516	772
	1895.											
1	January 5	34°·3	40°·6	28°·2	1462	348	194	85	221	248	297	69
2	" 12	20°·8	36°·6	23°·0	1622	369	200	90	224	288	360	91
3	" 19	40°·4	45°·9	27°·4	1639	370	205	96	197	331	390	100
4	" 26	35°·6	53°·8	23°·4	1481	311	151	80	190	314	362	73
5	February 2	26°·9	34°·2	19°·2	1598	337	192	87	221	324	373	64
6	" 9	22°·4	34°·1	6°·9	1768	386	188	82	237	341	442	92
7	" 16	26°·0	36°·2	14°·4	2167	452	250	99	278	521	700	167
8	" 23	34°·0	43°·1	18°·2	2863	505	337	92	280	612	868	169
9	March 2	36°·2	47°·1	27°·4	3246	524	357	100	288	646	1077	254
10	" 9	36°·5	48°·0	25°·3	3471	618	395	101	320	669	1089	279
11	" 16	43°·7	56°·7	31°·0	2817	611	347	108	265	502	753	231
12	" 23	43°·3	63°·0	33°·6	2190	448	332	79	226	427	533	145
13	" 30	44°·6	57°·1	35°·4	1781	390	282	88	222	326	410	63
14	April 6	41°·5	52°·2	31°·4	1597	357	290	79	176	288	335	72
15	" 13	47°·7	64°·0	34°·1	1622	409	265	75	198	265	339	71
16	" 20	49°·1	67°·7	32°·9	1585	410	261	85	190	264	312	63
17	" 27	50°·9	64°·8	43°·0	1508	423	214	60	162	289	293	67
18	May 4	51°·2	64°·8	36°·4	1395	321	221	82	186	256	275	54
19	" 11	57°·3	64°·4	39°·0	1398	318	198	84	190	256	291	61
20	" 18	55°·9	75°·4	39°·6	1389	325	219	84	172	253	280	51
21	" 25	52°·3	71°·1	41°·1	1371	327	192	87	196	258	269	47
22	June 1	61°·0	86°·2	44°·5	1308	279	195	87	175	254	271	47
23	" 8	60°·7	82°·7	43°·9	1247	254	180	84	158	240	266	46
24	" 15	58°·7	84°·3	42°·2	1213	263	198	73	170	240	232	37
25	" 22	60°·5	79°·0	45°·0	1276	314	212	82	176	218	229	45
26	" 29	65°·8	83°·8	49°·3	1429	425	231	81	185	232	226	49
27	July 6	61°·8	75°·0	50°·1	1519	548	222	82	169	240	212	46
28	" 13	65°·6	83°·8	49°·2	1768	680	281	95	188	240	235	49
29	" 20	62°·8	82°·0	51°·1	1906	880	310	104	185	237	251	49
30	" 27	62°·6	77°·5	51°·3	1939	892	286	90	184	207	242	38
31	August 3	59°·0	72°·1	48°·3	1806	772	308	87	166	211	207	55
32	" 10	60°·3	75°·8	48°·2	1601	616	272	79	167	215	222	30
33	" 17	61°·7	77°·8	52°·0	1459	490	232	38	159	226	241	53
34	" 24	66°·2	82°·2	51°·6	1430	466	224	77	167	257	227	52
35	" 31	61°·8	76°·8	45°·7	1336	422	190	113	164	199	206	42
36	September 7	65°·1	81°·6	46°·4	1358	420	199	78	171	227	230	33
37	" 14	60°·7	81°·7	41°·2	1298	381	200	98	156	228	192	43
38	" 21	56°·9	77°·0	42°·2	1346	425	163	91	174	261	188	44
39	" 28	65°·6	87°·3	41°·7	1532	443	220	100	190	279	259	41
40	October 5	56°·5	78°·0	39°·2	1342	383	180	76	184	261	212	46
41	" 12	50°·7	61°·3	37°·7	1435	394	213	78	193	261	237	59
42	" 19	49°·4	66°·2	35°·2	1518	421	238	108	189	256	255	51
43	" 26	40°·4	52°·4	28°·0	1470	410	221	94	189	262	251	52
44	November 2	39°·9	56°·0	27°·4	1789	412	280	140	226	328	320	83
45	" 9	50°·8	60°·1	32°·8	1790	392	303	104	235	312	366	78
46	" 16	50°·4	64°·0	39°·3	1510	325	285	96	191	250	290	64
47	" 23	45°·5	55°·3	34°·3	1488	341	295	103	177	251	260	61
48	" 30	43°·4	51°·9	32°·5	1455	332	296	82	182	250	255	58
49	December 7	44°·2	56°·0	33°·8	1459	398	305	91	163	257	249	56
50	" 14	39°·5	49°·0	26°·2	1477	325	252	106	196	281	268	49
51	" 21	38°·7	51°·5	29°·2	1521	351	339	96	175	260	265	55
52	" 28	34°·7	46°·3	25°·5	1502	310	292	113	178	261	288	60

TABLE 22.—Deaths in Public Institutions.

		DEATHS.			PUBLIC INSTITUTIONS.	SUB-DISTRICTS.	DEATHS.		
		TOTAL.	Males.	Females.			TOTAL.	Males.	Females.
TOTAL DEATHS IN PUBLIC INSTITUTIONS		23282	13015	10267					
WORKHOUSES AND WORKHOUSE INFIRMARIES -		11655	6465	5190	<b>WORKH. ESTABLISHMENTS.—cont.</b>				
METROPOLITAN ASYLUM HOSPITALS -		1669	814	855	<i>Poplar and Stepney Sick Asylum</i> 21; 2. Bromley - - -		538	317	221
GENERAL HOSPITALS -		7101	4189	2962	<i>Stepney W. (Aged &amp; Infirm)</i> 21; 2. Bromley - - -		108	71	37
HOSPITALS FOR SPECIAL DISEASES -		653	353	300	Poplar Workhouse - - - 21; 3. Poplar - - -		99	61	38
LYING-IN HOSPITALS -		11	11	11	North Street Infirmary - 21; 3. Poplar - - -		-	-	-
MILITARY AND NAVAL HOSPITALS -		103	65	38	St. Saviour's Workhouse 22; 1. Christch. Southwrk. -		10	10	-
HOSPITALS FOR FOREIGNERS -		177	169	8	St. Saviour's Workhouse 22; 4. Borough Road -		21	14	7
LUNATIC ASYLUMS -		137	104	33	St. Saviour's Workhouse 22; 7. St. Peter Walworth -		80	88	42
		1776	906	870	St. Olave's Workhouse - 23; 1. St. Olave - - -		41	19	22
					St. Olave's Workhouse - 23; 2. Leather Market -		46	25	21
					St. Olave's Infirmary - 23; 4. Rotherhithe - -		300	191	109
					Lambeth Workhouse { 21; 4. Lambeth Church 2nd		56	36	20
					Lambeth Infirmary { (Renfrew Road) -		595	328	267
					Lambeth Workhouse { (Brook Street) -		4	3	1
					Lambeth Work. School - 24; 8. Norwood - - -		-	-	-
					Wandsworth Infirmary - 25; 2. West Battersea -		462	235	227
					Westminster Indus. School 21; 2. West Battersea -		2	-	2
					Wandsworth Workhouse 25; 4. Wandsworth - -		11	8	3
					St. Anne's Home (Pan- 23; 6. Streatham - -		31	31	-
					cras Workhouse) -		-	-	-
					Chelsea Workhouse { 25; 6. Streatham - -		1	1	-
					(Fairfield House) -		-	-	-
					Camberwell Workhouse - 26; 2. Camberwell - -		74	35	39
					Camberwell Infirmary - 26; 2. Camberwell - -		364	199	165
					St. Saviour's Infirmary - 26; 2. Camberwell - -		649	400	249
					Camberwell W. (Gordon 26; 3. Peckham - -		46	20	26
					Road) -		-	-	-
					Camberwell W. (Willow- 26; 3. Peckham - -		-	-	-
					brook Road) -		-	-	-
					Greenwich Workhouse - 27; 4. Greenwich East -		131	61	72
					Greenwich Infirmary - 27; 4. Greenwich East -		330	190	140
					Workhouse School (St. 28; 1. Eltham - -		1	1	-
					Mary's R.C.) -		-	-	-
					Lewisham Workhouse - 28; 3. Lewisham - -		12	7	5
					Lewisham Infirmary - 28; 3. Lewisham - -		177	97	80
					Woolwich Workhouse - 29; 5. Plumstead East -		1	1	-
					Woolwich Infirmary - 29; 5. Plumstead East -		198	113	85
					<b>METN. ASYLUM HOSPITALS.</b>				
					<i>Western</i> - - - 2; 3. Fulham - - -		214	99	115
					<i>North-Western</i> - - - 7; 1. Hampstead - -		279	184	145
					<i>Eastern</i> - - - 10; 4. Hackney - - -		350	179	171
					<i>South Wharf Shelters</i> - 23; 4. Rotherhithe - -		4	1	3
					<i>South-Western</i> - - - 24; 7. Brixton - - -		211	94	117
					<i>Fountain Hospital</i> - 25; 6. Streatham - -		133	96	87
					<i>South-Eastern</i> - - - 27; 2. Deptford Central -		259	122	137
					<i>Hospital Ships</i> - - - 42; 2. Dartford - - -		47	26	21
					<i>Hosp. Camp</i> - - - 42; 2. Dartford - - -		1	-	1
					<i>North-Eastern</i> - - - 129; 2. Tottenham - -		112	59	53
					<i>Northern</i> - - - 129; 3. Edmonton - -		9	4	5
					<b>GENERAL HOSPITALS.</b>				
					<i>For Children</i> - - - 1a; 1. St. Mary Paddington		17	9	8
					<i>St. Mary's</i> - - - 1a; 2. St. John Paddington		332	190	142
					<i>Queen's Jubilee</i> - - - 1b; 2. Brompton - - -		8	6	2
					<i>West London</i> - - - 2; 2. St. Paul Hammersm.		165	95	70
					<i>St. Camillo's</i> - - - 3; 2. Chelsea North - -		4	4	-
					<i>Victoria (Children)-</i> 3; 3. Chelsea South -		137	70	67
					<i>Cheyne (Children)</i> - 3; 3. Chelsea South -		6	4	2
					<i>St. George's</i> - - - 4; 2. Belgrave - - -		374	245	129
					<i>Belgrave (Children)</i> - 4; 2. Belgrave - - -		24	10	14

NOTE.—Institutions except Workhouse Establishments in which no death occurred during the year are not shown in the Table. The Workhouse Establishments printed in *italics* receive inmates from other Districts than those in which they are situated.



registered during the 52 Weeks of 1895.

		DEATHS.					DEATHS.		
PUBLIC INSTITUTIONS.	SUB-DISTRICTS.	TOTAL.	Males.	Females.	PUBLIC INSTITUTIONS.	SUB-DISTRICTS.	TOTAL.	Males.	Females.
<b>GENERAL HOSPITALS—continued.</b>					<b>HOSPITALS FOR SPECIAL DISEASES—continued.</b>				
Westminster - - -	4; 4. St. Margaret Westm.	137	83	54	For Women - - -	3; 2. Chelsea North -	11	-	11
Home Hospital - - -	5; 2. St. Anne Soho -	1	1	-	Grosvenor (Wom. & Child.)	4; 3. St. John Westminster	3	-	3
Middlesex - - -	6; 1. All Souls Marylebone	344	182	162	Diseases of Throat -	5; 1. St. James Westm.	12	8	4
St. Elizabeth's Home	6; 1. All Souls Marylebone	9	-	9	For Women - - -	5; 2. St. Anne Soho -	18	-	18
Samaritan Free - -	6; 3. St. Mary Marylebone	22	-	22	Heart Diseases - - -	5; 2. St. Anne Soho -	9	4	5
For Incurables - -	6; 4. Christchurch -	1	1	-	Male Lock Hospital -	5; 2. St. Anne, Soho -	1	1	-
For Incurable Children	6; 5. St. John -	3	3	-	St. John's (Skin Dis.)	5; 2. St. Anne, Soho -	2	-	2
St. Helena Home - -	6; 5. St. John -	1	1	-	Ear Hospital - - -	5; 2. St. Anne, Soho -	1	-	1
St. Peter's Home, Kilburn	7; 1. Hampstead -	17	17	-	West End Hospital -	6; 1. All Souls -	7	6	1
Home Hospital - - -	7; 1. Hampstead -	8	5	3	London Throat - - -	6; 1. All Souls, Maryleb.	1	1	-
Incurables (Friedenheim)	7; 1. Hampstead -	76	37	39	Orthopedic - - -	6; 1. All Souls, Maryleb.	1	1	-
St. Luke's Home - -	8; 1. Regent's Park -	35	8	27	Home for Consump. Fem.	6; 3. St. Mary Maryleb.	8	-	8
University College - -	8; 2. Tottenham Court -	317	195	122	North London Consump.	7; 1. Hampstead -	28	20	8
Home Hospital - - -	8; 2. Tottenham Court -	4	3	1	St. Saviour's (Cancer)	8; 1. Regent's Park -	10	-	10
Medical & Surgical Home	8; 2. Tottenham Court -	151	103	48	Fitzroy Home - - -	8; 2. Tottenham Court -	1	1	-
Royal Free - - -	8; 3. Gray's Inn Lane -	100	57	43	Central London Throat	8; 3. Gray's Inn Lane -	7	6	1
Temperance - - -	8; 4. Somers Town -	59	36	23	and Ear - - -	8; 4. Somers Town -	12	-	12
North-West London -	8; 5. Camden Town -	150	82	68	For Women - - -	9; 2. Islington South-west	16	7	9
Great Northern Central	9; 1. Upper Holloway -	1	-	1	London Fever - - -	9; 2. Islington South-west	10	10	-
Children's Conval. Home	9; 1. Upper Holloway -	10	5	5	St. Peter's (Stone, &c.)	12; 2. St. Mary-le-Strand	44	21	23
(Winifred House) -	9; 4. Highbury -	3	-	3	National (Par. & Epil.)	13; 1. St. George the Martyr	6	3	3
Mildmay Memorial -	9; 4. Highbury -	2	-	2	Alexandra (Hip Diseases)	13; 1. St. George the Martyr	1	1	-
Invalid Home - - -	9; 4. Highbury -	121	72	49	Orthopedic Hosp. - -	13; 2. St. Andrew Eastern	57	44	13
Invalid Asylum - -	10; 1. Stoke Newington -	201	113	85	Royal, for Dis. of Chest	13; 7. City Road -	3	2	1
Metropolitan Free - -	10; 3. West Hackney -	237	142	95	Royal London Ophthalmic	11; 6. Broad Street -	96	70	26
Jewish Home for Incur.	10; 5. South Hackney -	16	13	13	City of London for	Chest Dis. - - -	18; 3. Bethnal Green East	-	-
Charing Cross - - -	12; 1. St. Martin in-the-Fields -	32	2	30	<b>LYING-IN HOSPITALS.</b>				
King's College - - -	12; 3. St. Clement Danes -	219	123	96	St. John the Divine - -	3; 2. Chelsea, { Women	1	-	1
London Homeopathic -	13; 1. St. George the Martyr -	2	2	-	Queen Charlotte's - -	6; 3. St. Mary, { Children	4	-	4
St. John and St. Elizabeth	13; 1. St. George the Martyr -	686	429	257	British - - -	11; 2. St. Giles { Women	53	35	18
For Children - - -	13; 1. St. George the Martyr -	5	2	3	City of London - - -	13; 7. City Road { Children	8	1	2
City Police - - -	14; 1. St. Botolph -	107	57	50	East End Mothers' Home	20; 1. Mile End { Women	12	8	2
St. Bartholomew's -	14; 3. St. Sepulchre -	116	637	459	General (York Road) -	24; 2. Waterloo { Children	6	2	4
Convent - - -	15; 1. Shoreditch South -	253	140	118	Clapham Maternity -	24; 5. Kenning- { Women	12	5	7
North-Eastern (Children)	15; 4. Haggerston -	2	2	-	<b>MILITARY AND NAVAL HOSPITALS.</b>				
Mildmay Medical Mission	16; 1. Bethnal Green N. -	170	94	76	Station Hospitals - -	4; 3. St. John Westminster	11	11	-
London - - -	17; 3. Whitechapel Church	572	359	213	Seamen's - - -	27; 5. Greenwich East -	132	126	6
East London (Children)	19; 1. Shadwell -	59	29	30	Herbert - - -	29; 1. Charlton -	29	28	1
Poplar - - -	21; 2. Bromley -	552	325	227	Garrison Female - -	29; 3. Woolwich Arsenal	3	2	1
Evelina (Children) -	22; 4. Borough Road -	8	3	5	Arsenal Infirmary - -	29; 3. Woolwich Arsenal	2	2	-
Guy's - - -	23; 1. St. Olave -	17	9	8	<b>HOSPITALS FOR FOREIGNERS.</b>				
Royal Infirmary (Women and Children)	24; 1. Waterloo Ist -	17	8	9	German - - -	10; 4. Hackney -	90	70	20
St. Thomas's - - -	24; 3. Lambeth Church Ist	28	16	12	French - - -	11; 3. St. Giles North -	39	26	13
British Home for Incurables	24; 8. Norwood -	3	3	-	Italian - - -	13; 1. St. George the Martyr	8	8	-
Bolingbroke House Hosp.	25; 2. West Battersea -	10	8	2	<b>LUNATIC ASYLUMS.*</b>				
The Hostel of God - -	25; 3. Clapham -	13	3	10	St. Luke's Hospital -	18; 7. City Road -	17	8	9
Royal, for Incurables -	25; 4. Wandsworth -	28	16	12	Hoxton House * - -	15; 1. Shoreditch South -	62	33	24
Cottage Home - - -	25; 4. Wandsworth -	3	3	-	Bethnal House * - -	16; 3. Bethnal Green East	42	21	21
Miller Hospital - - -	27; 4. Greenwich West -	12	6	6	Grove Hall * - - -	21; 1. Bow -	34	27	7
Cottage Hospital - -	28; 1. Eltham -	10	8	2	Bethlehem Hospital -	23; 5. London Road -	17	8	9
St. John's - - -	28; 2. Lee -	9	6	3	Middx. Lun. Asylum -	25; 4. Wandsworth -	11	7	4
Home for Sick Children	28; 4. Sydenham -	13	3	10	Peckham House * - -	26; 2. Camberwell -	51	22	19
Cottage Hospital - -	29; 1. Charlton -	87	26	61	Camberwell House * -	26; 2. Camberwell -	51	20	31
Cottage Hospital - -	29; 3. Woolwich Arsenal	1	-	1	London Co. Asyl., Bantock	30; 1. Carshalton -	169	79	90
<b>HOSPITALS FOR SPECIAL DISEASES.</b>					Metrop. Asyl., Caterham	37; 1. Croydon -	130	59	71
Lock Hospital - - -	1a; 1. St. Mary Paddington	94	51	43	London Co. Asyl., Cane Hill	38; 1. Godstone -	133	65	83
Consumption & Diseases of Chest	1b; 2. Brompton -	106	70	36	Metrop. Asyl., Darenth	42; 2. Dartford -	92	35	57
Cancer - - -	3; 2. Chelsea North -	87	26	61	City of Lond. Asyl., Stone	42; 2. Dartford -	25	13	12
					London Co. Asyl., Hanwell	125; 3. Hayes -	159	96	63
					London Co. Asyl., Colney Hatch	128; 3. Finchley -	197	94	103
					Metrop. Asyl., Leavesden	137; 2. Watford -	220	104	116
					Ldn. Cnty. Asyl., Claybury	189; 2. Ilford -	346	200	146

\* LUNATIC ASYLUMS.—Private Lunatic Asylums are excluded from this list, except those in which pauper lunatics are received, which are marked thus \*.

TABLE 23. LONDON.—Weekly Deaths from the principal ZYMOTIC DISEASES during the Four  
Fifty Years

	SMALL-POX.				MEASLES.				SCARLET FEVER.				DIPHThERIA.			
	1892	1893	1894	1895	1892	1893	1894	1895	1892	1893	1894	1895	1892	1893	1894	1895
YEAR	41	206	89	55	3393	1601	3293	2633	1174	1596	962	829	1885	3265	2670	2316
March Quar.	7	38	7	10	826	317	787	800	159	335	274	141	328	639	725	426
June "	24	100	34	3	1610	439	1747	565	261	336	285	166	437	677	651	446
Sept. "	6	49	43	31	575	459	459	753	365	458	228	253	487	860	641	602
Dec. "	4	19	5	11	382	446	300	1015	389	467	175	269	633	1089	653	842
Week.																
1 -	-	-	1	-	82	44	60	34	17	32	34	14	25	47	66	50
2 -	-	2	1	-	83	40	65	30	9	35	26	12	29	61	55	34
3 -	-	1	-	1	76	39	45	35	13	26	25	9	23	37	48	31
4 -	-	-	-	-	60	26	35	21	9	35	9	7	24	53	52	29
5 -	-	5	1	2	39	12	21	13	14	30	23	11	27	43	72	45
6 -	-	1	-	3	29	15	42	17	14	19	22	15	13	62	55	34
7 -	-	-	-	1	47	15	40	27	11	26	24	18	15	60	58	27
8 -	-	4	2	1	68	21	59	26	16	19	19	10	30	51	42	29
9 -	-	5	1	1	52	20	47	20	10	21	20	7	27	37	59	31
10 -	-	2	6	-	54	20	66	23	4	15	17	6	34	38	53	34
11 -	-	2	3	1	82	21	74	12	12	30	19	4	31	65	53	27
12 -	-	6	-	-	73	14	96	19	13	17	18	15	30	49	55	24
13 -	-	2	5	-	81	30	137	23	17	30	23	13	15	36	67	31
14 -	-	2	2	-	102	23	132	18	19	19	20	11	34	38	63	23
15 -	-	3	-	-	113	24	112	25	14	18	29	15	33	44	50	27
16 -	-	2	9	3	127	44	125	39	17	24	29	9	29	47	53	30
17 -	-	2	6	4	156	34	131	26	19	28	25	9	17	50	62	27
18 -	-	1	11	-	158	26	125	39	20	21	30	13	31	54	58	29
19 -	-	3	13	3	136	20	152	34	25	15	25	11	24	68	55	38
20 -	-	4	4	3	140	32	175	30	13	26	20	13	42	51	56	41
21 -	-	1	16	7	122	35	165	32	23	29	20	10	39	41	41	37
22 -	-	3	9	4	120	29	148	50	12	27	14	17	40	51	36	41
23 -	-	7	7	3	132	38	169	36	21	24	17	17	37	39	34	33
24 -	-	1	6	-	111	45	122	72	29	38	19	12	34	62	43	45
25 -	-	1	11	5	100	48	99	71	28	29	18	11	39	68	44	37
26 -	-	4	3	1	93	41	92	84	21	38	19	18	38	64	56	38
27 -	-	1	9	1	83	52	88	73	21	35	17	12	30	54	43	53
28 -	-	4	4	2	74	56	57	75	23	34	16	20	43	52	45	50
29 -	-	4	10	1	77	53	57	82	20	36	24	23	37	66	36	39
30 -	-	1	8	1	67	36	53	94	24	36	29	14	25	72	52	48
31 -	-	-	3	5	64	42	50	67	33	44	18	24	42	64	57	57
32 -	-	-	2	10	56	43	33	70	21	26	19	15	35	63	62	55
33 -	-	-	3	4	36	55	34	62	33	48	14	21	37	63	57	50
34 -	-	-	3	2	42	30	27	55	28	33	17	27	38	56	43	24
35 -	-	-	2	7	21	31	18	56	38	30	13	21	34	56	33	40
36 -	-	-	-	6	18	23	13	40	34	36	13	20	37	65	39	38
37 -	-	-	1	3	2	17	18	9	28	31	25	15	19	36	65	55
38 -	-	-	2	-	8	6	13	24	24	27	34	15	13	43	88	52
39 -	-	-	2	1	12	14	7	27	32	41	18	24	50	96	67	56
40 -	-	-	1	1	16	18	9	15	33	39	9	22	51	74	66	44
41 -	-	-	2	-	20	22	10	34	24	34	12	25	46	86	54	56
42 -	-	-	-	-	23	20	8	42	28	40	18	23	41	84	61	76
43 -	-	-	2	1	22	16	24	48	39	33	17	19	56	83	49	61
44 -	-	-	2	1	32	33	15	75	36	43	10	23	47	88	54	72
45 -	-	-	1	1	29	42	13	97	32	47	9	19	51	103	42	75
46 -	-	-	2	-	30	48	22	77	32	37	8	14	29	91	44	61
47 -	-	-	1	-	28	31	21	103	29	42	14	27	46	90	48	69
48 -	-	-	2	-	35	39	29	100	31	34	19	17	39	74	54	63
49 -	-	-	4	-	30	34	36	105	23	30	18	19	58	89	57	69
50 -	-	-	1	-	31	45	32	96	35	29	13	19	59	85	53	63
51 -	-	-	1	1	32	49	35	126	25	32	14	25	60	63	36	62
52 -	-	-	-	1	49	49	46	97	22	27	14	17	50	79	35	71

years 1892-1895; and the AVERAGE WEEKLY Numbers from these DISEASES during the years 1845-1894.

HOOPING-COUGH.				FEVER.				DIARRHŒA.				WEEKLY AVERAGE in 50 Years, 1845-94.											
												Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Fever.	Diarrhœa.					
1892	1893	1894	1895	1892	1893	1894	1895	1892	1893	1894	1895												
477	2330	2097	1483	467	719	653	629	2546	3446	1780	3600	16	36	41	17	48	34	54	YEAR.				
473	531	934	511	80	105	145	135	211	206	171	166	19	33	34	15	67	33	14	March Qr.				
630	592	609	448	90	122	131	81	328	757	140	316	20	43	29	15	57	30	21	June „				
204	619	349	261	130	219	111	159	1747	2186	1215	2655	12	29	43	16	33	33	155	Sept. „				
170	588	205	263	167	273	266	254	262	297	254	463	13	38	59	20	36	39	25	Dec. „				
																				Week.			
153	34	81	23	3	11	10	17	13	13	9	14	19	46	44	17	60	36	13	1				
166	37	107	35	17	10	16	16	30	8	12	15	19	43	43	16	62	35	14	2				
170	34	93	21	7	8	16	20	16	15	16	16	21	37	42	14	66	34	14	3				
155	18	87	27	5	4	12	17	10	21	15	10	20	31	37	15	70	34	15	4				
137	36	69	30	6	10	14	9	17	14	14	12	21	27	35	17	71	34	15	5				
104	39	54	29	4	4	6	13	14	16	17	12	21	25	34	17	70	32	15	6				
100	42	61	48	4	7	8	10	19	14	16	10	20	24	32	17	68	33	14	7				
69	45	74	42	7	9	5	4	17	21	16	12	20	29	32	15	67	32	15	8				
67	38	72	55	5	12	13	7	16	17	14	11	20	28	31	15	65	29	15	9				
89	28	59	55	6	11	10	9	20	20	13	16	19	31	29	14	66	33	14	10				
91	46	55	56	9	5	14	4	14	18	10	10	18	33	27	16	67	33	13	11				
92	73	49	43	3	7	9	4	12	20	12	14	18	35	26	14	69	31	14	12				
80	61	73	49	4	7	12	5	13	9	7	14	18	38	29	14	73	33	13	13				
																				Week.			
65	53	64	44	10	6	7	6	13	14	7	15	20	39	26	15	68	30	13	14				
66	49	54	49	5	8	9	3	17	15	14	18	20	39	27	16	69	31	13	15				
66	60	43	51	6	7	9	5	24	14	9	7	22	41	28	14	67	31	14	16				
59	49	77	44	5	9	9	5	14	8	8	13	21	43	27	15	64	30	13	17				
59	43	59	36	8	13	8	5	18	21	11	18	22	43	29	14	62	30	14	18				
66	37	53	35	7	7	9	9	9	29	14	19	20	43	28	15	61	28	13	19				
45	44	46	31	10	5	9	8	13	25	15	18	22	44	28	15	58	30	14	20				
45	36	50	39	6	9	15	9	16	30	11	14	22	44	30	14	57	29	15	21				
34	35	43	30	8	8	13	5	25	28	10	16	20	46	30	15	53	29	17	22				
31	31	36	22	4	8	11	9	28	70	9	19	20	46	31	14	49	29	20	23				
39	47	34	20	9	8	10	5	39	96	5	21	19	44	30	15	45	30	26	24				
26	52	20	18	5	16	12	5	61	183	13	46	20	43	32	16	44	28	39	25				
29	56	25	29	7	13	10	7	59	219	15	92	18	42	32	15	43	29	55	26				
																				Week.			
24	49	23	25	7	13	3	5	108	219	35	169	16	41	34	15	41	29	60	27				
27	56	29	19	9	16	7	11	171	264	94	270	15	38	35	15	42	30	144	28				
26	50	43	23	8	9	8	6	192	272	140	373	14	37	36	15	41	32	195	29				
23	54	35	22	5	15	6	9	158	190	122	397	13	36	38	16	39	31	232	30				
16	64	26	17	7	24	6	13	125	162	126	373	12	35	39	16	35	29	223	31				
14	39	35	20	11	15	11	9	123	135	164	224	11	31	40	16	34	31	207	32				
13	49	30	10	7	30	6	15	148	153	124	163	11	30	41	15	31	32	194	33				
13	29	22	21	9	20	11	10	158	190	114	112	11	27	43	16	30	33	175	34				
9	42	26	22	4	14	8	11	165	172	71	122	11	24	44	16	30	34	153	35				
9	47	15	17	10	15	14	21	158	129	79	129	10	21	45	15	29	34	133	36				
12	50	20	14	20	11	10	16	109	118	62	107	10	19	49	17	28	36	109	37				
12	45	25	21	17	23	8	22	65	95	49	109	10	18	50	19	27	38	88	38				
6	45	15	25	16	14	13	11	62	87	35	107	8	18	58	20	25	38	74	39				
																				Week.			
11	32	7	14	15	10	13	22	40	52	33	102	10	21	61	20	25	38	57	40				
5	24	13	10	12	21	20	22	32	40	30	87	10	23	62	20	24	39	47	41				
2	35	10	15	13	19	17	20	33	44	26	62	9	27	63	21	26	40	38	42				
7	28	18	20	18	19	14	20	20	27	19	45	10	28	65	19	26	41	30	43				
10	28	14	11	10	18	17	17	30	23	20	36	10	33	65	18	29	41	26	44				
10	37	10	14	9	17	25	24	13	7	16	20	12	36	62	21	29	39	21	45				
15	44	8	21	16	21	21	23	14	22	23	25	13	39	62	20	34	41	20	46				
12	45	11	19	11	25	18	13	11	15	15	22	12	42	61	21	36	40	17	47				
8	48	26	19	11	25	18	21	11	11	25	14	14	46	60	20	38	40	16	48				
17	59	23	30	11	34	17	17	17	11	14	9	15	47	55	22	43	41	16	49				
22	67	25	24	15	21	24	21	17	23	11	6	16	47	55	21	46	40	15	50				
20	74	26	33	10	24	25	11	11	15	15	20	16	51	48	19	51	37	14	51				
31	67	14	32	14	18	32	23	13	7	7	15	16	50	46	19	56	35	14	52				

\* The weekly averages for scarlet fever and diphtheria relate to the 35 years 1860-94.



TABLE 24.—Births and Deaths Registered in London, and Meteorology at Greenwich, in each Week of 1895.

No. of Week.	Week ending	BIRTHS.			DEATHS.			Mean Temperature of the Air.	Mean of the		Degree of Humidity, (complete saturation = 100).	Fall of Rain in Inches.	Amount of Horizontal Movement of the Air in each Week.	Sun above Horizon in Hours.	Registered Sunshine in Hours.
		Total.	Males.	Femls.	Total.	Males.	Femls.		Highest Readings of the Thermometer.	Lowest Readings of the Thermometer.					
1	1895, Jan. 5	3085	1569	1516	1402	751	711	34.3	37.1	30.9	81	0.20	Miles. 2809	55.1	0.2
2	" 12	2922	1498	1424	1622	806	816	29.8	32.5	27.2	87	0.01	1139	56.5	1.7
3	" 19	2818	1388	1430	1689	879	810	40.4	44.0	35.6	89	0.72	2076	58.1	4.7
4	" 26	2612	1294	1318	1481	728	753	35.6	41.2	29.8	84	0.54	2763	60.4	6.4
5	Feb. 2	2587	1336	1251	1598	828	770	26.9	32.0	21.9	75	0.28	1894	62.9	4.8
6	" 9	2736	1331	1355	1748	880	888	29.4	32.4	24.8	68	0.02	1671	65.7	18.4
7	" 16	2737	1402	1335	2407	1203	1204	26.9	32.4	19.8	68	0.00	2329	68.7	18.4
8	" 23	2787	1412	1375	2863	1384	1479	34.0	40.1	28.5	84	0.00	1244	71.9	8.3
9	March 2	2671	1349	1322	3246	1562	1684	36.2	42.1	31.7	85	0.19	2240	75.0	5.2
10	" 9	2681	1354	1327	3471	1601	1871	36.5	43.3	31.7	85	0.34	1770	78.3	12.3
11	" 16	2821	1451	1370	2817	1310	1507	43.7	52.6	35.9	77	0.02	1710	81.4	29.8
12	" 23	2650	1340	1310	2100	1099	1001	48.3	58.2	39.7	80	0.18	1729	84.7	21.4
13	" 30	2466	1227	1239	1781	927	854	44.6	52.3	39.5	81	0.71	3759	88.0	17.5
14	April 6	2731	1390	1341	1597	868	729	41.5	48.3	36.0	84	0.12	1955	91.2	9.8
15	" 13	2380	1233	1147	1622	817	805	47.7	58.1	39.7	75	0.05	1926	94.5	29.6
16	" 20	2677	1355	1322	1585	854	731	49.1	60.4	40.7	77	0.13	1927	97.5	33.0
17	" 27	2691	1380	1311	1508	802	706	50.9	59.2	45.8	88	1.15	2102	100.5	10.7
18	May 4	2837	1421	1416	1395	729	666	51.2	62.5	40.4	73	0.04	1861	103.4	42.0
19	" 11	2549	1271	1278	1398	717	681	57.3	69.8	44.4	61	0.00	1919	106.2	74.7
20	" 18	2496	1246	1250	1389	747	642	55.9	65.4	47.7	83	0.19	2303	108.7	20.2
21	" 25	2640	1337	1303	1371	709	662	52.3	62.5	44.6	81	0.19	1380	111.1	22.3
22	June 1	2569	1336	1233	1208	669	639	61.0	74.6	48.5	69	0.08	1222	112.9	40.9
23	" 8	3333	1176	1157	1247	633	614	60.7	73.0	49.3	63	0.02	1772	114.5	58.0
24	" 15	2678	1397	1281	1213	637	576	58.7	70.6	48.0	61	0.02	1424	115.4	33.7
25	" 22	2639	1369	1270	1276	638	638	60.5	73.9	48.4	64	0.10	1295	116.1	38.1
26	" 29	2488	1291	1197	1429	732	697	65.8	79.8	53.3	61	0.02	1392	115.8	37.8
27	July 6	2651	1342	1309	1519	802	717	61.8	71.8	53.8	65	0.30	2032	115.1	32.5
28	" 13	2586	1345	1241	1768	921	847	65.6	78.7	53.7	55	0.13	2030	113.8	59.7
29	" 20	2557	1307	1250	1996	1037	959	62.8	73.3	54.0	67	0.46	2279	112.2	30.1
30	" 27	2575	1316	1259	1939	1003	936	62.6	71.7	55.9	81	1.66	2212	110.2	17.8
31	August 3	2624	1376	1248	1806	915	891	59.0	67.2	53.1	82	1.23	1366	107.8	12.0
32	" 10	2340	1216	1124	1601	870	731	60.3	71.3	52.7	78	1.00	2027	105.2	29.7
33	" 17	2446	1340	1306	1459	770	689	61.7	71.4	53.9	78	0.35	1736	102.3	32.9
34	" 24	2448	1235	1213	1340	705	725	66.2	78.4	55.9	71	0.19	1383	99.4	56.7
35	" 31	2617	1328	1289	1336	632	644	61.8	72.6	53.3	75	0.15	2445	96.4	51.5
36	Sept. 7	2486	1246	1240	1358	704	654	65.1	78.8	53.7	73	0.82	1244	93.1	54.3
37	" 14	2557	1289	1268	1298	659	639	60.7	71.8	51.4	75	0.09	1699	90.0	39.4
38	" 21	2541	1278	1263	1346	703	643	58.9	63.8	46.8	81	0.03	1297	86.9	30.5
39	" 28	2618	1378	1240	1532	784	748	65.6	81.8	52.4	71	0.00	1000	88.6	56.1
40	Oct. 5	2447	1228	1219	1342	697	645	56.5	68.5	46.2	77	0.49	2424	80.5	32.5
41	" 12	2632	1355	1267	1435	793	702	50.7	57.0	45.8	83	1.45	1991	77.3	7.9
42	" 19	2629	1308	1321	1518	766	752	49.4	57.8	42.1	85	0.15	1215	74.2	11.7
43	" 26	2447	1220	1227	1470	744	726	40.4	46.4	34.4	85	0.45	1541	71.1	10.0
44	Nov. 2	2693	1368	1325	1789	921	868	39.9	47.5	33.0	87	1.16	1481	68.0	12.0
45	" 9	2525	1314	1211	1790	910	880	50.8	56.3	45.3	91	0.09	2382	65.1	4.8
46	" 16	2576	1328	1248	1510	758	752	50.4	56.9	43.5	80	0.87	3462	62.5	21.2
47	" 23	2596	1314	1282	1488	770	718	45.5	50.6	39.8	88	0.28	1875	60.0	12.5
48	" 30	2159	1081	1078	1455	745	710	43.4	46.8	38.7	89	0.65	2510	57.7	0.7
49	Dec. 7	2373	1228	1145	1459	738	721	44.2	48.7	39.0	82	0.20	3813	56.1	5.1
50	" 14	2219	1171	1048	1477	759	718	39.5	45.2	33.1	84	0.46	2488	54.9	1.6
51	" 21	2401	1213	1188	1521	794	727	38.7	42.0	35.0	89	0.76	1875	51.1	0.3
52	" 28	1501	758	743	1502	775	727	34.7	38.2	31.5	93	0.75	2275	54.2	0.9

TABLE 25.—Greenwich Meteorological Elements for the Year 1895. By J. GLAISHER, Esq., F.R.S.

1895. MONTHS.	Mean Reading of the Baromet.	TEMPERATURE OF THE AIR.							Departure from Average of 124 Years, 177-1894.	Mean Temperature of the Dew Point.	Mean Elastic Force of Vapour.	Weight of Vapour in a Cubic Foot of Air.	Mean additional Weight required for Saturation.	Mean Degree of Humi- dity, Saturation = 100.	Mean Weight of a Cubic Foot of Air.	RELATIVE PROPORTION OF WIND.				Mean Amount of Cloud.	RAIN.		
		Highest by Day.	Lowest by Night.	Range in Month.	Mean of all Highest.	Mean of all Lowest.	Mean Daily Range.	Mean for the Month.								N.	E.	S.	W.		Number of Days it fell.	Amount collected.	
in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
January	29.5 8	53.8	20.3	33.5	37.7	29.5	8.2	33.8	-0.9	29.2	1.11	1.19	0.3	86	555	13	5	7	6	6.9	19	1.62	
February	29.910	45.0	6.9	38.1	35.2	22.8	12.4	23.9	-0.9	22.1	1.18	1.4	0.5	74	538	10	11	3	4	5.8	4	0.22	
March	29.566	63.0	26.3	36.7	61.1	36.4	14.7	42.8	+1.7	37.3	2.23	2.6	0.6	88	515	4	2	16	9	6.5	19	1.43	
April	29.735	67.7	31.4	36.3	57.2	40.7	16.5	47.8	+1.7	43.2	2.69	3.1	0.7	82	543	7	4	11	8	6.8	12	1.25	
May	29.907	86.2	37.3	48.4	67.5	45.5	22.0	56.0	+3.6	45.5	3.05	3.4	1.6	67	537	14	9	5	3	4.2	6	0.45	
June	29.895	84.3	43.2	42.1	74.1	50.0	24.1	61.4	+3.1	49.7	3.44	3.8	2.2	63	531	10	5	6	9	5.7	8	0.21	
July	29.710	83.8	49.2	34.6	72.8	54.2	18.6	62.6	+1.0	51.7	3.84	4.2	2.1	68	526	4	2	14	11	6.3	16	3.39	
August	29.748	82.2	45.7	36.5	73.0	53.7	19.3	62.2	+1.3	54.5	4.25	4.7	1.6	76	527	1	2	15	13	5.2	15	2.14	
September	29.977	87.3	41.2	46.1	75.4	51.3	24.1	63.2	+5.7	54.0	4.18	4.6	1.6	75	531	6	10	7	7	2.6	5	0.98	
October	29.671	75.8	27.4	48.4	54.2	39.6	14.6	46.5	+3.0	4.7	2.64	3.1	0.6	85	518	6	7	12	6.5	15	2.69		
November	29.716	64.0	32.5	31.5	52.6	41.5	11.1	47.3	+4.4	48.6	2.84	3.2	0.5	88	543	2	9	10	9	7.3	20	2.39	
December	29.623	66.0	25.5	30.5	44.8	35.6	8.7	40.2	+1.2	38.7	2.18	2.5	0.4	88	549	5	7	6	13	7.6	19	2.61	
Means	29.748	70.8	32.1	33.6	57.9	41.7	16.2	49.3	+0.7	42.3	2.84	3.2	1.1	78	541	82	72	107	104	5.9	168	19.73	
																Sum.				Mean	Sum		

TABLE 26.—METEOROLOGICAL TABLE FOR LONDON, 1895.

(Deduced from Observations, at Greenwich, under the Superintendence of the Astronomer Royal, and compiled from Quarterly Tables, furnished to the Registrar General by James Glaisher, Esq., F.R.S.)

	Temperature of						Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.		Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Reading of Thermometer on Grass.							
	Air.		Evaporation.		Dew Point.		Air—Daily Range.		Mean.	Diff. from Average of 54 Years.	Mean.	Diff. from Average of 54 Years.	Mean.	Diff. from Average of 54 Years.	Mean.	Diff. from Average of 54 Years.	Amount.	Diff. from Average of 80 Years.	Lowest Reading at Night.			Highest Reading at Night.				
	Mean.	Diff. from Average of 124 Years.	Diff. from Average of 54 Years.	Mean.	Diff. from Average of 54 Years.	Mean (Sat=100).	Diff. from Average of 54 Years.	Mean.											Diff. from Average of 54 Years.	At or below 30°.	Between 30° and 40°.		Above 40°.			
	Winter . . . Jan, Feb, March.	Spring . . . April, May, June.	Summer . . . July, Aug, Sept.	Autumn . . . Oct, Nov, Dec.																						
1895.	43.3	+0.7	-0.1	45.9	-0.5	42.3	-1.2	16.2	+0.4	.284	-.009	3.2	-0.2	78	-4	29.748	-.023	541	0	19.73	-5.33	88	130	147	6.9	59.1
YEAR	35.2	-3.7	-1.6	33.3	-4.6	29.5	-5.7	11.8	0.0	.167	-.039	2.0	-0.5	81	-3	20.634	-.103	556	+4	3.27	-1.68	55	33	2	6.9	42.5
Winter Quarter .	55.1	+2.8	+2.2	50.1	+1.0	45.5	+0.2	20.9	+0.8	.306	-.001	3.4	-0.1	71	-7	23.846	+0.34	537	-1	1.91	-3.79	6	43	42	25.3	54.3
Spring do.	62.3	+2.7	+2.2	57.6	+1.3	53.4	+0.4	20.7	+1.0	.439	+0.05	4.5	-0.1	73	-5	23.812	+0.19	528	-2	6.46	-0.83	0	7	85	30.8	59.1
Summer do.	44.7	+1.0	+0.4	42.8	+0.3	40.7	+0.2	11.5	-0.	.255	-.001	2.9	-0.2	87	-3	29.671	-.079	545	-2	8.00	+0.97	27	47	18	20.0	50.1
Autumn do.																										

In this Table + and - respectively signify that the number in the preceding column is *above* or *below* the average to the amount of the quantities to which those signs are affixed.

TABLE 27.—Number of Services, and Average Daily Quantity of Water Delivered by the London Water Companies in each MONTH of the Year 1895.

COMPANIES.		NUMBER OF SERVICES IN											
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
<b>Total Services</b>		812,595	812,799	813,528	814,476	815,613	816,517	818,023	819,247	820,880	822,124	823,457	823,992
FROM THAMES		392,719	392,796	393,133	393,543	394,111	394,821	395,369	395,002	396,880	397,398	397,556	398,271
FROM LEA AND FROM OTHER SOURCES		419,876	420,003	420,395	420,933	421,502	421,696	422,714	423,345	423,991	424,726	425,901	425,721
FROM THAMES.													
CHELSEA		36,941	36,950	36,950	36,750	36,766	36,811	36,843	36,878	36,916	36,889	36,911	36,943
WEST MIDDLESEX		78,486	78,486	78,486	78,740	78,797	78,983	79,020	79,020	79,302	79,469	79,546	79,644
SOUTHWARK AND VAUXHALL		117,385	117,421	117,544	117,663	117,830	118,014	118,127	118,232	118,440	118,534	118,643	118,695
GRAND JUNCTION		59,495	59,500	59,549	59,611	59,669	59,732	59,786	59,843	59,946	59,985	60,089	60,150
LAMBETH		100,412	100,439	100,604	100,779	101,049	101,281	101,533	101,929	102,285	102,520	102,667	102,889
FROM LEA AND FROM OTHER SOURCES.													
NEW RIVER		158,210	158,188	158,207	158,399	158,433	158,627	158,800	159,042	159,108	159,376	159,473	159,467
EAST LONDON		180,312	180,398	180,741	181,038	181,427	181,427	182,015	182,454	182,945	183,262	183,890	183,890
KENT		81,354	81,417	81,447	81,496	81,642	81,642	81,779	81,849	81,938	82,088	82,298	82,424

AVERAGE DAILY SUPPLY OF WATER IN GALLONS DURING THE MONTHS OF

COMPANIES.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
<b>Total Quantities supplied</b>		196,889,975	220,149,332	259,272,068	228,020,760	231,824,748	240,490,973	232,572,139	216,891,923	226,334,331	215,433,126	203,454,823	194,605,025
FROM THAMES		99,685,849	97,386,515	112,562,290	114,712,881	117,403,442	123,565,852	124,727,621	116,840,508	119,468,764	113,597,592	106,376,477	101,244,657
FROM LEA AND FROM OTHER SOURCES		97,204,126	122,762,817	116,709,778	113,307,879	114,421,306	116,925,121	107,844,518	100,551,415	106,865,567	101,835,524	97,078,351	93,360,368
FROM THAMES.													
CHELSEA		11,955,444	11,751,290	12,855,115	12,967,533	13,360,592	13,833,407	14,014,709	12,684,700	12,795,405	12,285,028	11,779,822	11,389,028
WEST MIDDLESEX		19,335,363	18,310,034	17,732,717	20,473,390	22,438,367	23,721,806	23,091,254	20,831,269	21,297,715	20,573,545	20,357,553	19,625,060
SOUTHWARK AND VAUXHALL		31,056,066	29,639,681	30,665,111	30,339,130	30,338,459	33,069,369	38,591,896	38,628,138	39,148,389	37,180,132	34,311,547	33,500,373
GRAND JUNCTION		14,564,220	15,038,929	18,466,870	19,270,114	19,872,394	20,961,306	20,527,170	18,621,017	18,763,311	17,893,531	17,240,181	16,820,724
LAMBETH		21,484,156	22,655,578	23,739,071	23,966,686	24,473,840	25,059,280	25,150,163	25,575,204	27,465,625	25,565,616	22,457,094	20,276,552
FROM LEA AND FROM OTHER SOURCES.													
NEW RIVER		33,627,000	41,101,000	38,850,000	36,436,000	40,808,000	41,851,000	43,121,000	39,345,000	38,810,000	36,521,000	34,395,000	32,020,000
EAST LONDON		48,413,589	63,607,612	58,477,148	59,491,025	55,013,530	55,198,432	43,750,467	45,828,978	50,550,490	49,381,396	46,782,628	46,184,224
KENT		15,253,537	18,024,205	19,373,630	17,380,854	18,509,776	19,375,769	18,963,621	17,377,457	17,660,077	15,966,225	15,900,823	15,166,144

Note.—The quantities of water in the above Table include the supply for various purposes other than for domestic consumption.



TABLE 28.—Average Number of Services, and Average Daily Quantity of Water DELIVERED for ALL PURPOSES and for DOMESTIC PURPOSES, by the London Water Companies during 1895.

WATER COMPANIES.	AVERAGE NUMBER of SERVICES during the Year.	AVERAGE DAILY SUPPLY OF WATER DURING THE YEAR.				
		Delivered.		Used for Domestic purposes.†		
		Gallons.	Cubic Metres.*	Gallons.	Gallons per Service.	
					1894.	1895.
<b>Total</b>	817,771	219,669,936	998,061	180,129,348	199	220
FROM THAMES	395,229	112,264,363	510,063	92,056,778	211	233
FROM LEA AND FROM OTHER SOURCES	422,542	107,405,573	487,993	88,072,570	188	208
FROM THAMES.						
CHELSEA	36,879	12,573,435	57,127	10,310,217	260	280
WEST MIDDLESEX	78,998	20,892,612	94,652	17,082,742	201	216
SOUTHWARK AND VAUXHALL	118,044	35,947,337	163,324	29,476,816	222	250
GRAND JUNCTION	59,780	18,599,640	84,507	15,251,712	247	255
LAMBETH	101,528	24,311,330	110,453	19,935,291	166	196
FROM LEA AND FROM OTHER SOURCES.						
NEW RIVER	158,785	38,074,500	172,990	31,221,090	185	197
EAST LONDON	181,976	51,872,370	235,680	42,535,344	205	234
KENT	81,781	17,458,703	79,323	14,316,136	157	175
Columns	1.	2.	3.	4.	5.	6.

\* A cubic metre is equal in volume to 35·3 cubic feet, or to 220·09668 imperial gallons. It is nearly equivalent to the old English *ton* of four hogsheads, holding 35·248 cubic feet. It is in general use on the Continent; and its volume of water weighs a metric *ton*, differing inconsiderably in weight from the *ton* in common use. It is equal to 100 decalitre: thus a decalitre equals 2·2009668 gallons.

† According to returns of the London Water Companies made to the Select Committee on East London Water Bills (Session 1867), it is estimated that during the year 1866 about 82 per cent. of the total supply of water for all purposes was for domestic use; this proportion has been applied in estimating the quantities in columns 4, 5, and 6, showing the gallons probably used for domestic purposes. The average daily quantity of water supplied by the London Companies during the year 1895 was 219,669,936 gallons (998,061 cubic metres, equal to about as many *tuns* by measure, *tons* by weight), of which about 180,129,348 gallons (818,410 cubic metres) were probably used for domestic purposes. The average quantity used daily for domestic purposes to each service (see Col. 6) is equal to 100·0 decalitre, and, assuming 7·0 persons to each service, corresponds to 31·4 gallons (14·3 decalitre) to each person. The Returns of the Water Companies include services to uninhabited houses.

REPORT on the CHEMICAL, PHYSICAL, and BACTERIOSCOPIC EXAMINATION of  
the WATERS supplied by the METROPOLITAN WATER COMPANIES during the  
YEAR 1895. By Professor E. FRANKLAND, D.C.L., LL.D., M.D., F.R.S.

*Water-analysis Laboratory, The Yews, Reigate,*  
31st January 1896.

SIR,

I HAVE now to report to you the results of the chemical analysis, and the physical and bacterioscopic examination, of the water supplied by the eight Metropolitan Water Companies, the Colne Valley Water Company, and the Tottenham Local Board of Health, during the year 1895.

At the request of the Associated Metropolitan Water Companies I have continued to extend these monthly examinations to (a) the chemical, physical, and bacterioscopic condition of the raw river waters at the intakes of the various Companies, (b) the bacteriology of these waters after storage, and (c) to the bacterioscopic condition of the water as it issues from the filter beds of each Company, and before it is pumped into the distributing mains.

CHEMICAL AND PHYSICAL EXAMINATION.

A comparison of Diagram No. 1 in my report of last year with the corresponding diagram here given shows that the raw material operated upon by the Companies drawing their supplies from rivers during the year 1895 was much more favourable for the operations of these Companies than was the case in the previous year.

The only chemical impurity of consequence in these waters is organic matter, the two chief elements of which are carbon and nitrogen. Diagram No. 1 shows the fluctuations of organic matter in the raw river waters taken in by the various Companies drawing their supplies from the rivers Thames and Lea during each month of the year. In this diagram, the proportion of organic matter in a given volume of the Kent Company's water, during the nine years ending December 1876, is taken as unity; the proportions in the same volumes of the river waters are expressed by the ordinates, and the months in which these proportions were found by the abscissæ.

This diagram demonstrates the general chemical superiority of the Lea over the Thames as a raw material. It also shows the greater purity of the Lea in its upper, as compared with its lower, reaches. The comparison of the water of the New River cut with that of the river Lea at Angel Road, where the East London Company's intake is situated, must not, however, be interpreted too strictly, inasmuch as the New River cut receives water from the Chadwell spring, and also, during dry seasons, a large volume of deep-well water which is pumped into it. As in 1894, so in the past year, the curve of the New River cut never overtops that of the Lea at Angel Road; and is almost always very much below it. On the other hand, the water of the Lea at Angel Road was in February, and again in March, April, and August inferior to the raw Thames water at Hampton. But this is comparatively a rare occurrence; and, generally, the raw water of the Lea at Angel Road is, as the diagram shows, better than that of the Thames at Hampton; this being especially the case in times of flood. Thus in November, when the Thames was organically very impure, the Lea at Angel Road exhibited a considerably smaller amount of organic impurity.

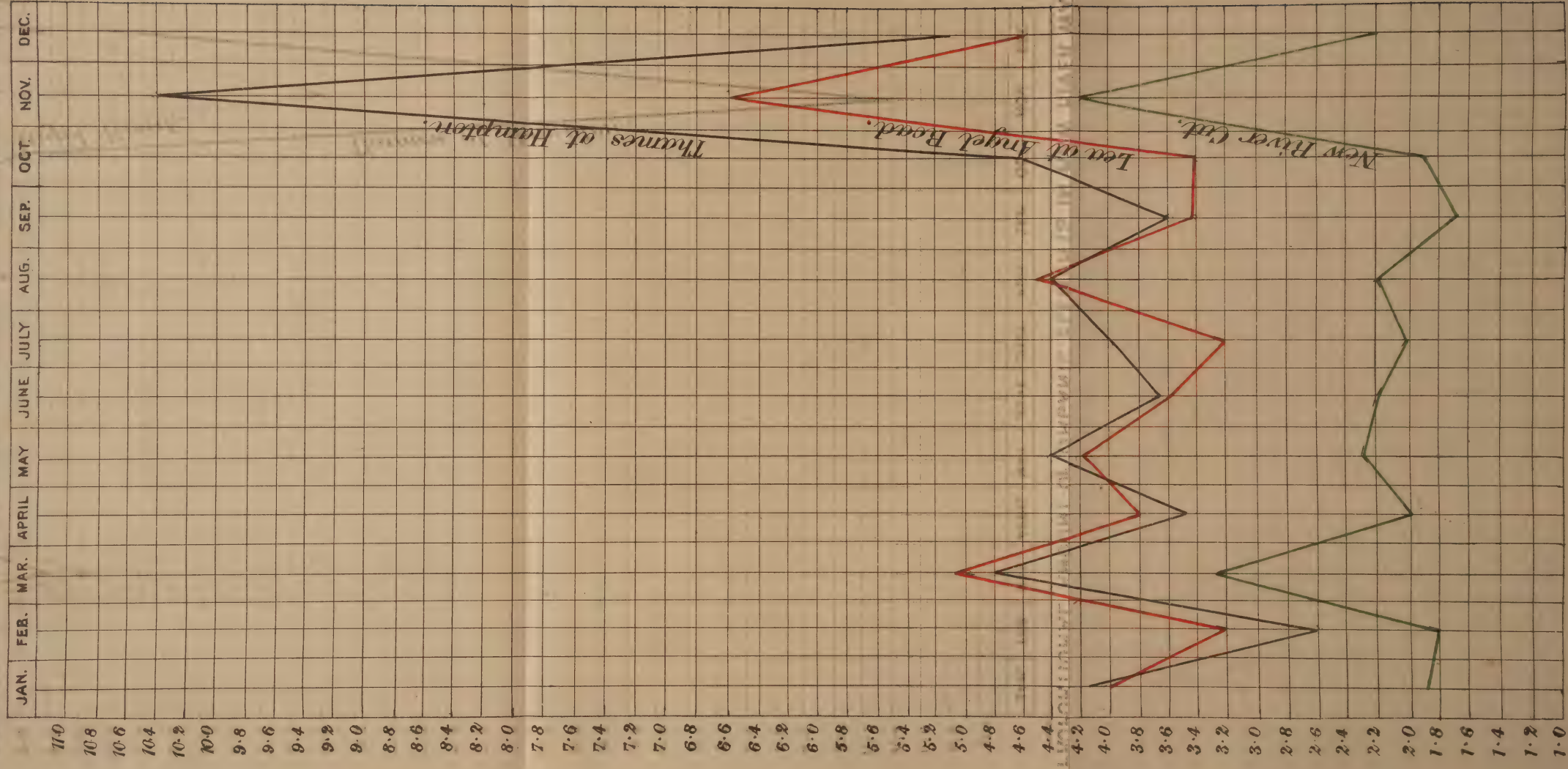
The next diagram (No. 2), constructed on the same scale as the last, compares the organic matter in the raw Thames water at Hampton with that of the average filtered water delivered in London by the five Companies drawing from this river. This diagram shows how great was the chemical improvement effected by these Companies even during the severe flood of November, although the red curve shows that there was not sufficient storage to circumvent this flood which markedly affected the chemical quality of the filtered water both in November and December.

The next diagram (No. 3) compares the raw Lea water at Angel Road with the filtered supply of the East London Company as delivered in London, the scale being the same as before.



# DIAGRAM N<sup>o</sup> 1.

## PROPORTIONAL AMOUNT OF ORGANIC ELEMENTS IN RAW RIVER WATER





190201

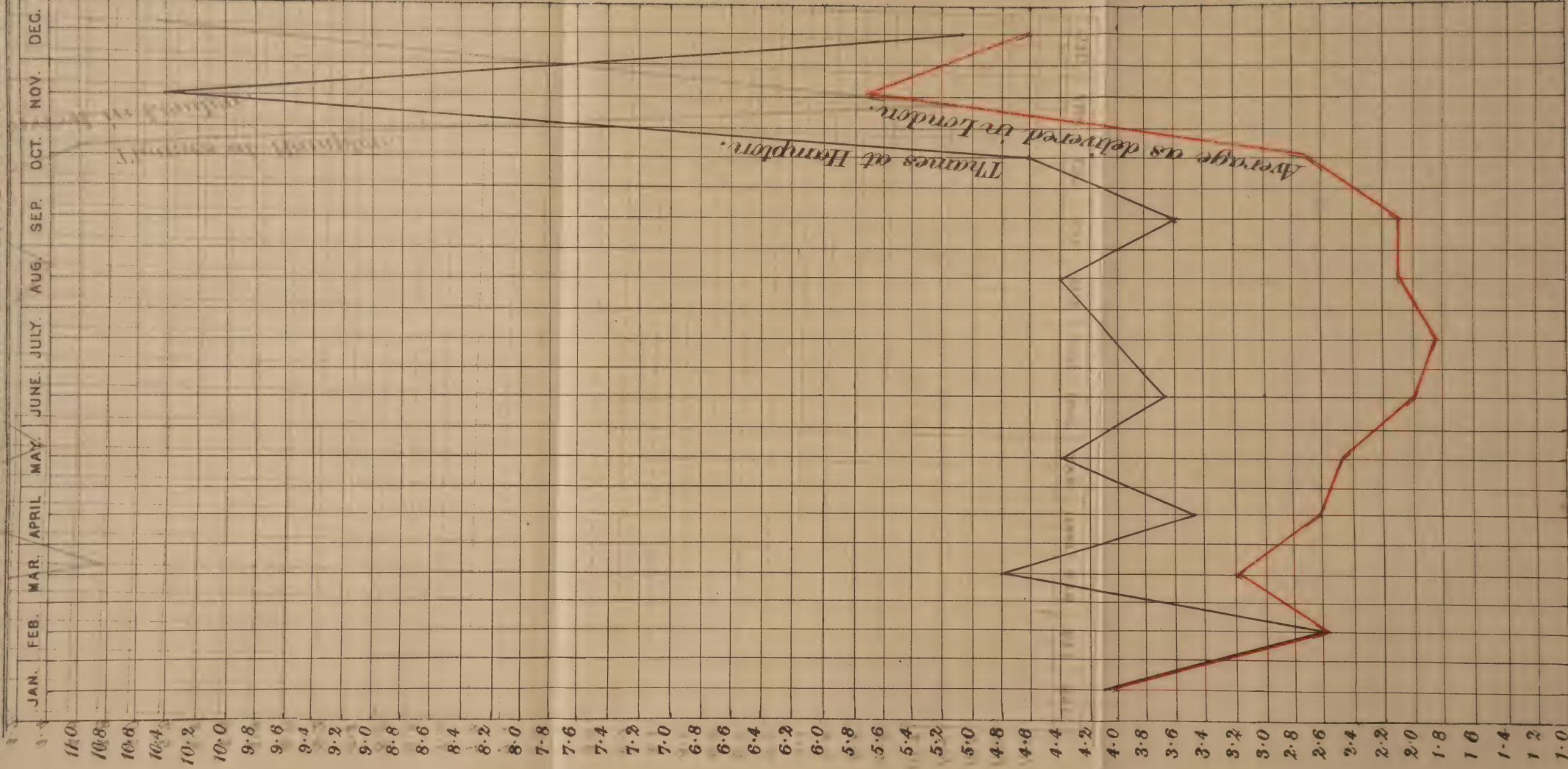


ДИВАН № 5

the same as before.

# DIAGRAM N<sup>o</sup> 2.

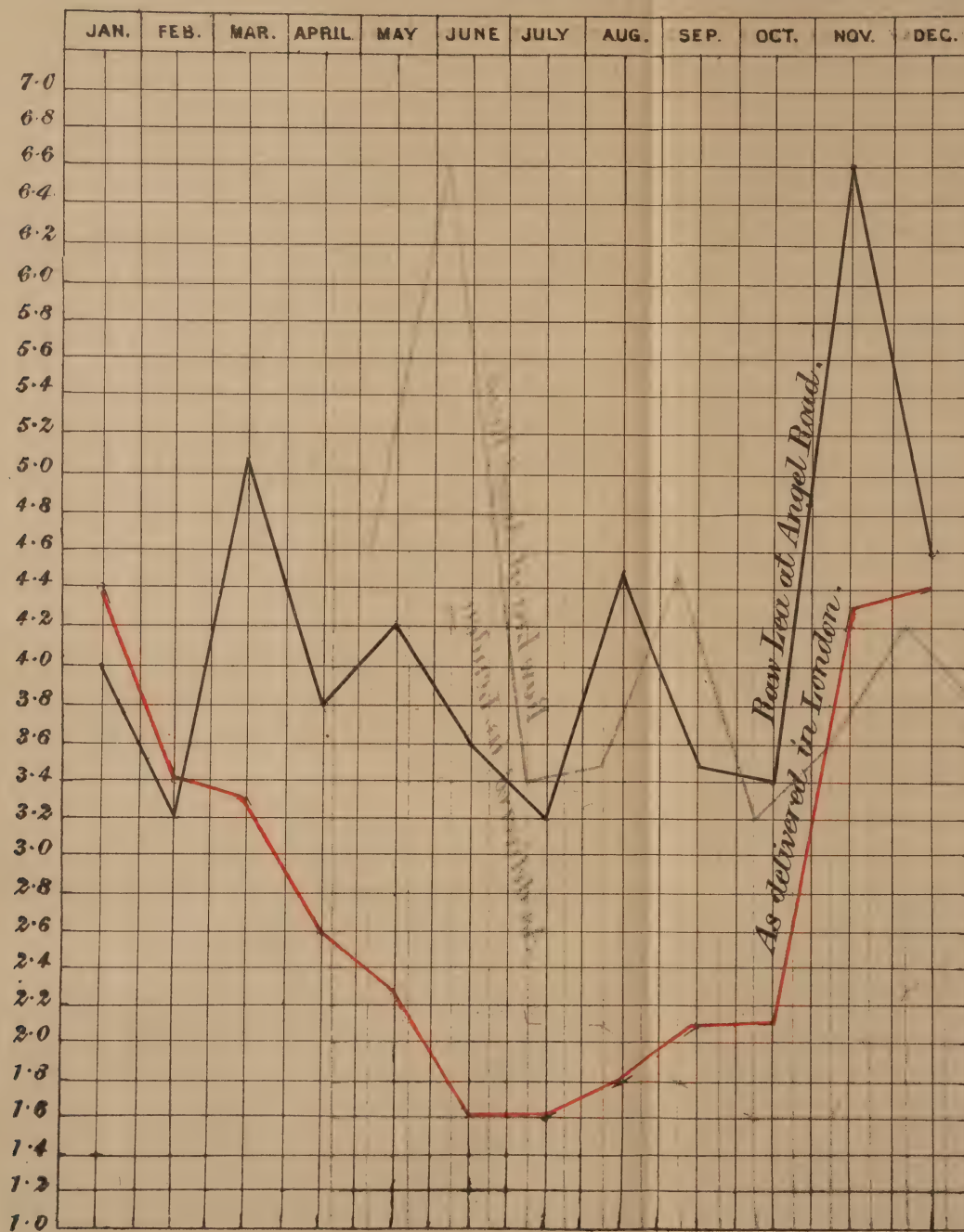
## PROPORTIONAL AMOUNT OF ORGANIC ELEMENTS IN THAMES WATER.







PROPORTIONAL AMOUNT OF ORGANIC ELEMENTS IN RAW LEA & EAST LONDON C<sup>o</sup> WATER.

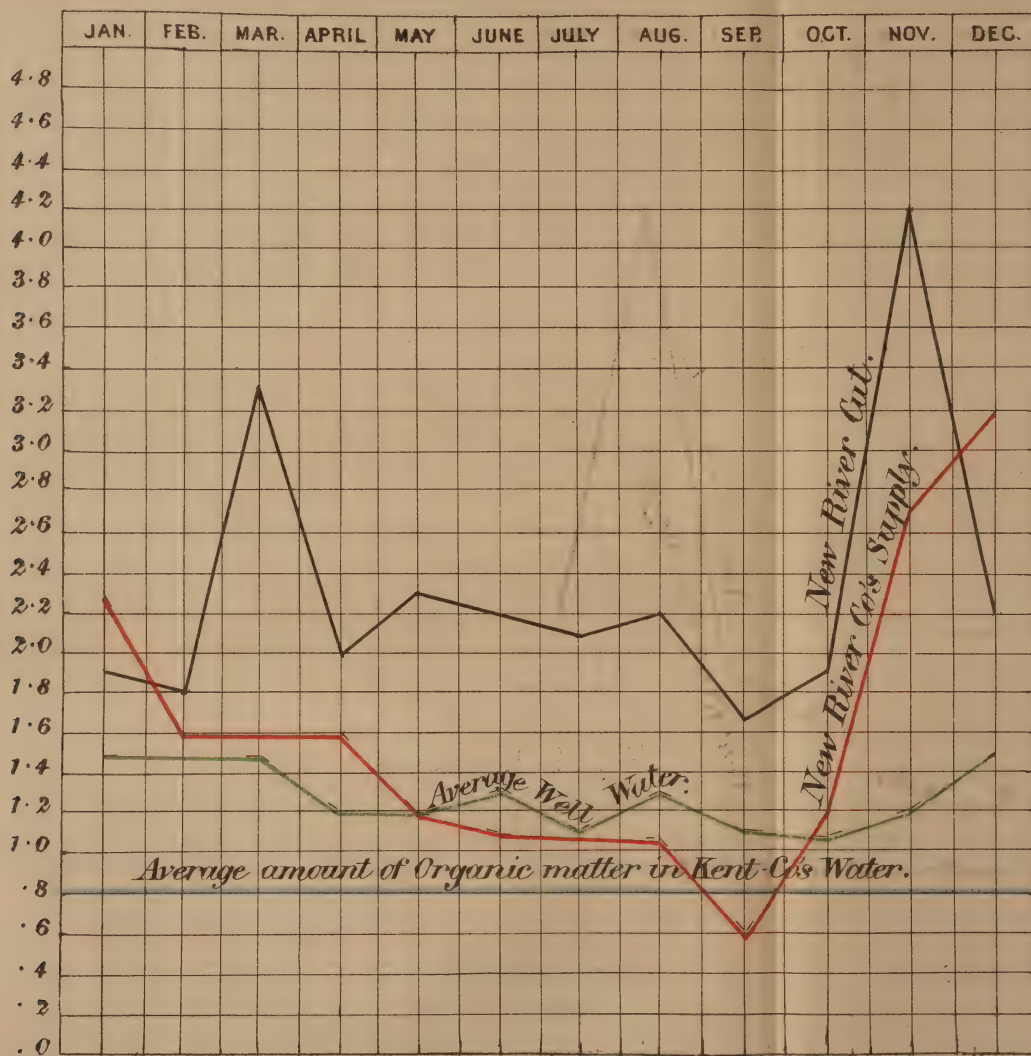






# DIAGRAM N<sup>o</sup> 4.

## PROPORTIONAL AMOUNT OF ORGANIC ELEMENTS IN NEW RIVER AND DEEP WELL WATERS.

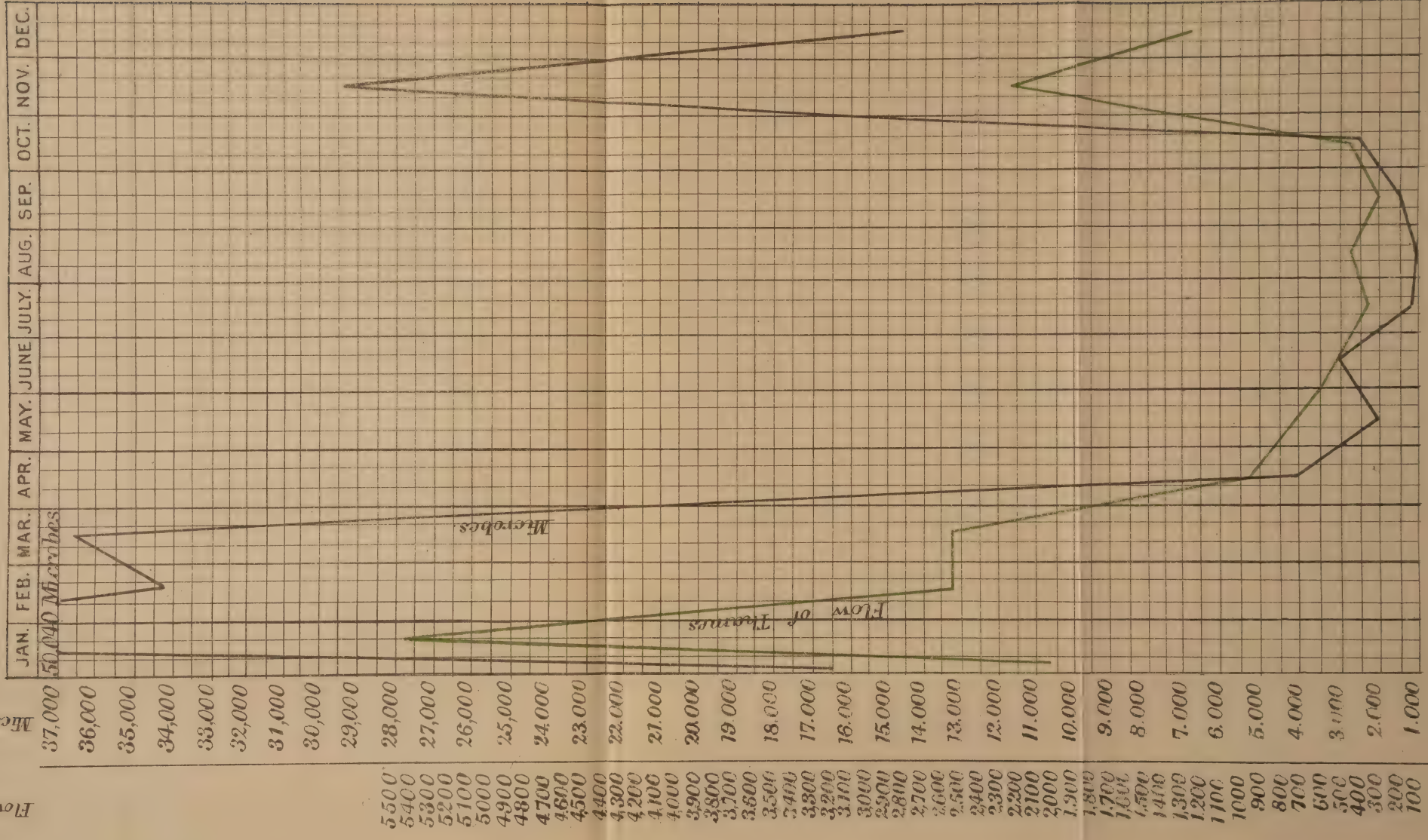






Flow of Thames  
Miles per C.C.

DIAGRAM N° 5.





The East London Company possesses more storage capacity than that of any other Metropolitan Water Company; but, the diagram proves that even 15 days storage was not sufficient to entirely circumvent the floods of January, November, and December. In January and February the stored but unfiltered water was inferior in chemical quality to that of the Lea passing the intake, and the floods in these months and in November and December markedly affected the quality of this Company's supply. During the other months of the year, the filtered water was, as the diagram shows, of excellent chemical quality.

The next diagram (No. 4) contrasts the organic elements contained in the unfiltered water of the New River cut with the amount present in the supply of the New River Company; and, in order to compare the water delivered by this Company with the deep-well waters of the Kent, Colne Valley, Tottenham, and East London Companies, I have introduced into this diagram a third curve showing the average amount of organic matter in these last-named waters. I have also marked the average amount of organic elements in the Kent Company's water during the nine years ending December 1876, this being the standard of organic purity used in these diagrams and in all my reports.

This diagram demonstrates that, except in January, November, and December, the New River Company's supply was free from flood water, and was of uniformly excellent quality. In four months, indeed, even better than the average of the deep well waters.

All the samples for chemical and physical examination were taken directly from the mains of the several Companies at places recommended by their respective engineers. In addition to the chemical analysis to which each sample has been submitted, the temperature of the water, as it issues from the mains at the time of the collection of the sample, has been determined, and the appearance which the water exhibited on being viewed in a two-foot tube, has been recorded. The results of the chemical analyses and observations of temperature are contained in the accompanying Tables A. to L.

Table A. gives the temperatures of the waters at the time of the collection of the samples. From this table it will be seen that, although the average temperature of the different waters for the year is remarkably uniform, the monthly variations, in the case of the river waters, are very great; whilst the temperature of the deep-well waters is practically uniform throughout the year. Thus the water, principally derived from the Thames and supplied by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies, varied in temperature from  $1^{\circ}1$  C. ( $34^{\circ}0$  Fahr.) in January to  $19^{\circ}5$  C. ( $67^{\circ}1$  Fahr.) in July and August, and the water of the Lea, distributed by the New River and East London Companies, fluctuated from  $1^{\circ}4$  C. ( $34^{\circ}5$  Fahr.) in February to  $17^{\circ}7$  C. ( $63^{\circ}9$  Fahr.) in July. The deep-well water of the Kent Company, on the other hand, was free from these violent fluctuations, and practically maintained a constant temperature throughout the year; it varied only from  $9^{\circ}9$  C. ( $49^{\circ}8$  Fahr.) in February to  $13^{\circ}2$  C. ( $55^{\circ}8$  Fahr.) in July and August. This uniformity in temperature of deep-well water causes it to be cool and refreshing in summer and less likely to become frozen in the service-pipes in winter; whilst river water at  $17^{\circ}7$  C. ( $63^{\circ}9$  Fahr.) is unpleasantly rapid, and at  $1^{\circ}1$  C. ( $34^{\circ}0$  Fahr.), is not far removed from the freezing point.

Table B. gives the total amount of solid matters found in 100,000 parts by weight of each water. These solid matters are almost wholly composed of mineral substances, which, in these proportions, in no way diminish the fitness of the water for dietetic purposes. But the salts of lime and magnesia, constituting the principal part of these mineral ingredients, are objectionable; not only because they impart to the water what is known as "hardness," and thus render it unsuitable for washing, but also because they produce incrustations and deposits in steam and kitchen boilers and hot-water pipes. The comparatively slight proportion of organic material which the solid matter invariably contains, is, on the other hand, of more importance; because, if present in too large quantity, it interferes with the palatability of the water and imparts to it a more or less brownish-yellow tint. No unpalatable or objectionably tinted water was delivered in London during the year.



In nature, even the purest waters contain, almost invariably, minute quantities of organic matter; but in river water the presence of even a small proportion is considered objectionable, partly on sentimental, and partly on hygienic grounds, by reason of the possible origin of some portions of this organic matter. The water both of the Thames and Lea receives, above the points where it is abstracted for the purpose of the metropolitan supply, various contributions of organic matter of animal origin, such as the drainage from manured land, and the effluents of sewage works. This animal matter though innocuous in itself, may at any time, be accompanied by zymotic matters dangerous to health. But, although the sentimental objection to the presence of animal matter cannot be removed, it is gratifying to find, as the result of recent researches, that the zymotic matters of the pathogenic kind are rapidly destroyed in running water, so that the most minute microscopic inspection of the water as it reaches the intakes of the various Companies has hitherto failed to discover in it a single pathogenic germ. Further, it is now an established fact, that efficient sand filtration would prevent the passage of such germs into the filtered water, even should they arrive in a living condition at the intakes of the Companies. Thus the hygienic objection to the use of filtered water taken from the Thames and Lea is removed. This result of recent observations, carefully and laboriously conducted in this country, in Germany, and especially in the United States of America, is confirmed by the absence in London since the year 1866 of zymotic diseases traceable to the water supply. To secure this desirable result, however, *efficient* filtration is essential; and there can be no doubt that the immense loss of life during the cholera epidemics of 1849, 1854, and 1866 was due to the want of attention to filtration.

The saline matters dissolved in the deep-well water from the chalk are considerably greater in amount than those found in the Thames and Lea; and inasmuch as this chalk water is sent out in its natural condition by the Kent and East London Companies and by the Tottenham Local Board of Health, these supplies contained more solid matter than any of the other Metropolitan waters. The Colne Valley Company, on the other hand, by treating this chalk water with lime before delivery so reduced the solid matters that the latter were on the average about one-third less than the amount present in the river waters, and under one-half of that in the deep-well water, either of the Kent Company or of the Tottenham Local Board of Health.

Tables C. and D. are very important; they record the amounts of organic carbon and organic nitrogen in each of the waters, as determined by combustion with oxide of copper. Since these are the only two ingredients of the organic matter which can be accurately determined, these results are the only available evidence of the relative proportions of organic matter present in the waters. The tables show that, whilst both the Thames and Lea were occasionally considerably polluted with organic matter, the water actually delivered by the Companies drawing from these rivers was only found to be present in exceptionally large quantity in the months of November and December; and this, in the case of the Chelsea Company, and in that of the Southwark, Grand Junction, and Lambeth Companies only in November. The water distributed from the Lea by the New River and East London Companies on the other hand, never contained an abnormal proportion of organic matter, and was generally throughout the year superior to the Thames derived waters of the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies; the New River Companies water often rivaling or even surpassing the average of the deep-well waters in respect of organic purity.

The relation between the amounts of organic carbon and organic nitrogen recorded in these tables affords data from which an opinion may be formed as to the origin of the organic matter, whether animal or vegetable. If the relative proportion of nitrogen to carbon be high, the inference is that the organic matter is chiefly animal; on the other hand, if it be low, it is certain that the organic matter is chiefly, if not entirely, of vegetable origin. Examined from this point of view, these tables indicate that the organic matter present in the river waters, as delivered in London, was to a very large extent of vegetable origin.

The proportion of organic matter in the deep-well waters of the Kent, Colne Valley, and East London Companies, and in that of the Tottenham Local Board of Health, was almost invariably very small.

Taking the mean proportion of organic matter contained in the Thames water delivered in 1868 as 1,000, I find that in subsequent years, 1895 included, the following proportions were present :—

Year.	Proportion of Organic Matter present in Thames Water as delivered in London.	Year.	Proportion of Organic Matter present in Thames Water as delivered in London.
1868 - - -	1,000	1882 - - -	1,033
1869 - - -	1,016	1883 - - -	850
1870 - - -	755	1884 - - -	723
1871 - - -	928	1885 - - -	839
1872 - - -	1,243	1886 - - -	756
1873 - - -	917	1887 - - -	690
1874 - - -	933	1888 - - -	722
1875 - - -	1,030	1889 - - -	677
1876 - - -	903	1890 - - -	680
1877 - - -	907	1891 - - -	1,002
1878 - - -	1,056	1892 - - -	831
1879 - - -	1,165	1893 - - -	762
1880 - - -	1,254	1894 - - -	955
1881 - - -	993	1895 - - -	731

These figures show that the Thames water distributed during the year 1895 was of better average quality than that sent out during the four previous years.

Of the water chiefly derived from the river Lea, that supplied by the New River Company contained, in every case, as usual, less organic matter than that present in the water of the East London Company, which was in this respect, on the average, equal to the best of the Thames waters.

Taking, as before, the mean proportion of organic impurity contained in the Thames water delivered in 1868 as 1,000, I find in that and subsequent years, 1895 included, the following proportions were present in the Lea water :—

Year.	Proportion of Organic Matter present in Lea Water as delivered in London.	Year.	Proportion of Organic Matter present in Lea Water as delivered in London.
1868 - - -	484	1882 - - -	711
1869 - - -	618	1883 - - -	620
1870 - - -	550	1884 - - -	500
1871 - - -	604	1885 - - -	603
1872 - - -	819	1886 - - -	500
1873 - - -	693	1887 - - -	478
1874 - - -	583	1888 - - -	506
1875 - - -	751	1889 - - -	504
1876 - - -	562	1890 - - -	432
1877 - - -	596	1891 - - -	684
1878 - - -	747	1892 - - -	610
1879 - - -	947	1893 - - -	502
1880 - - -	1,013	1894 - - -	554
1881 - - -	765	1895 - - -	541

Thus the Lea water delivered during the year 1895 was of good average quality, and better than that delivered in the previous year.

The organic matter found in the deep-well water supplied to London during the past twenty-seven years is, of course, much smaller in amount, and the fluctuations from year to year are, as might be expected, less violent than in the river water. Referred to the same standard, the figures are as follow :—

Year.	Proportion of Organic Matter present in Deep-well Water as delivered in London.	Year.	Proportion of Organic Matter present in Deep-well Water as delivered in London.
1868 - - -	254	1882 - - -	409
1869 - - -	312	1883 - - -	321
1870 - - -	246	1884 - - -	264
1871 - - -	150	1885 - - -	200
1872 - - -	221	1886 - - -	244
1873 - - -	250	1887 - - -	249
1874 - - -	287	1888 - - -	241
1875 - - -	259	1889 - - -	268
1876 - - -	246	1890 - - -	252
1877 - - -	243	1891 - - -	357
1878 - - -	323	1892 - - -	338
1879 - - -	387	1893 - - -	327
1880 - - -	393	1894 - - -	348
1881 - - -	403	1895 - - -	314

Table E. shows the proportional amount of organic elements (organic carbon and organic nitrogen) in each of the waters, the average amount of these elements contained in the Kent Company's water during the nine years ending December 1876 being taken as unity.

This table shows that the maximum, minimum, and average proportions of organic matter, as measured by this standard, present in the several waters during the year 1895, were :—

Sources.		Maximum.	Minimum.	Average.	
Deep wells	{	Kent - -	0.8	0.5	0.6
		Tottenham -	1.8	0.9	1.3
		East London -	2.3	1.1	1.6
		Colne Valley -	2.7	1.2	1.7
River Lea	{	New River -	3.2	0.6	1.6
		East London -	4.4	1.6	2.8
River Thames	{	Chelsea - -	5.0	1.9	2.9
		Grand Junction -	5.3	1.9	2.8
		West Middlesex -	5.9	1.9	3.1
		Southwark -	6.9	1.8	3.1
		Lambeth -	6.8	1.9	3.2

Thus, of the deep-well waters, that supplied by the Kent Company contained, on the average, by far the smallest proportion of organic matter. Of the river water, that sent out by the New River Company stood much higher than the others. In

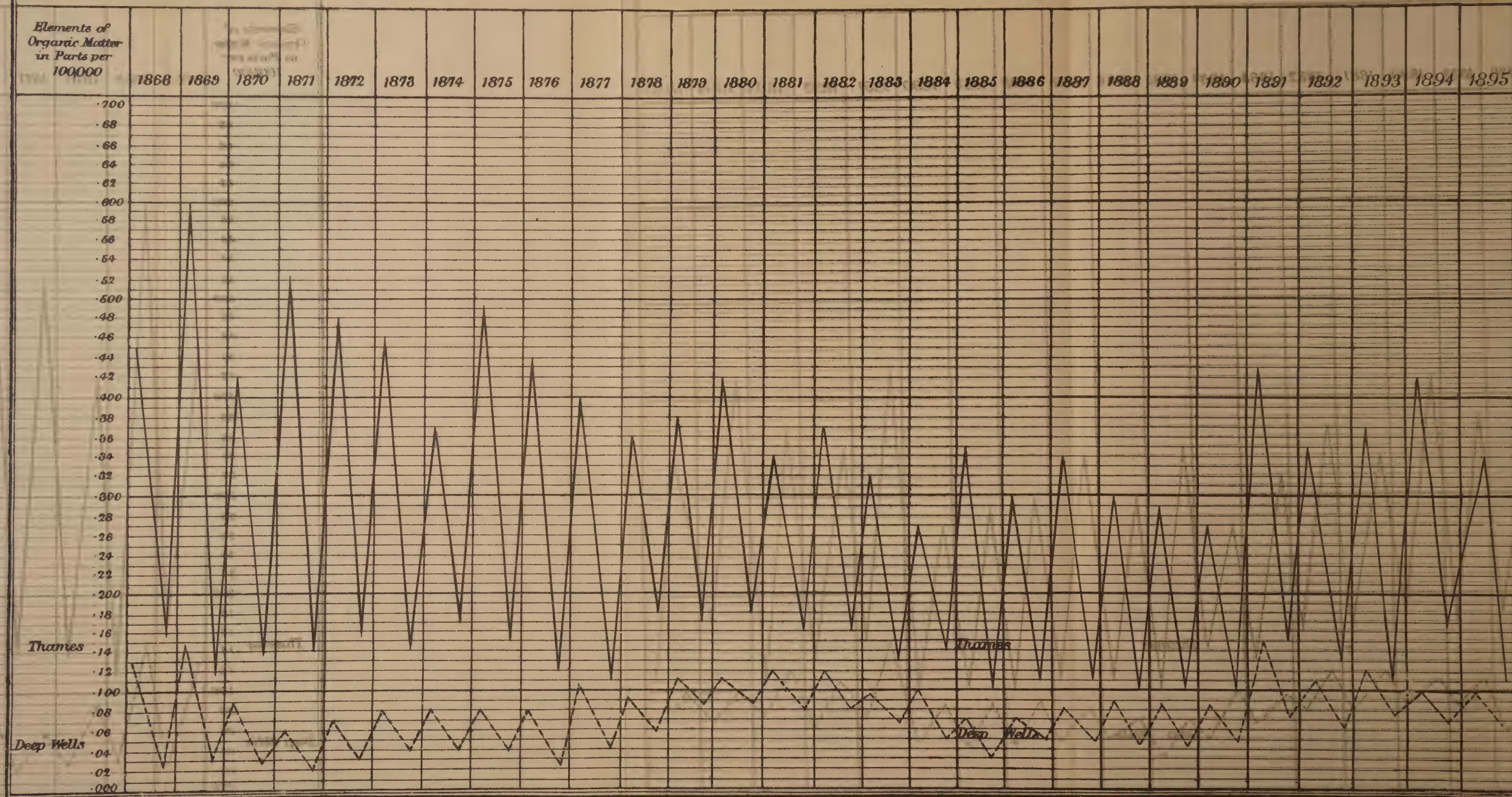






# MAXIMUM AND MINIMUM PROPORTION OF ORGANIC MATTER IN WATER FROM THAMES AND DEEP WELLS.

(A)





418 419 420 421





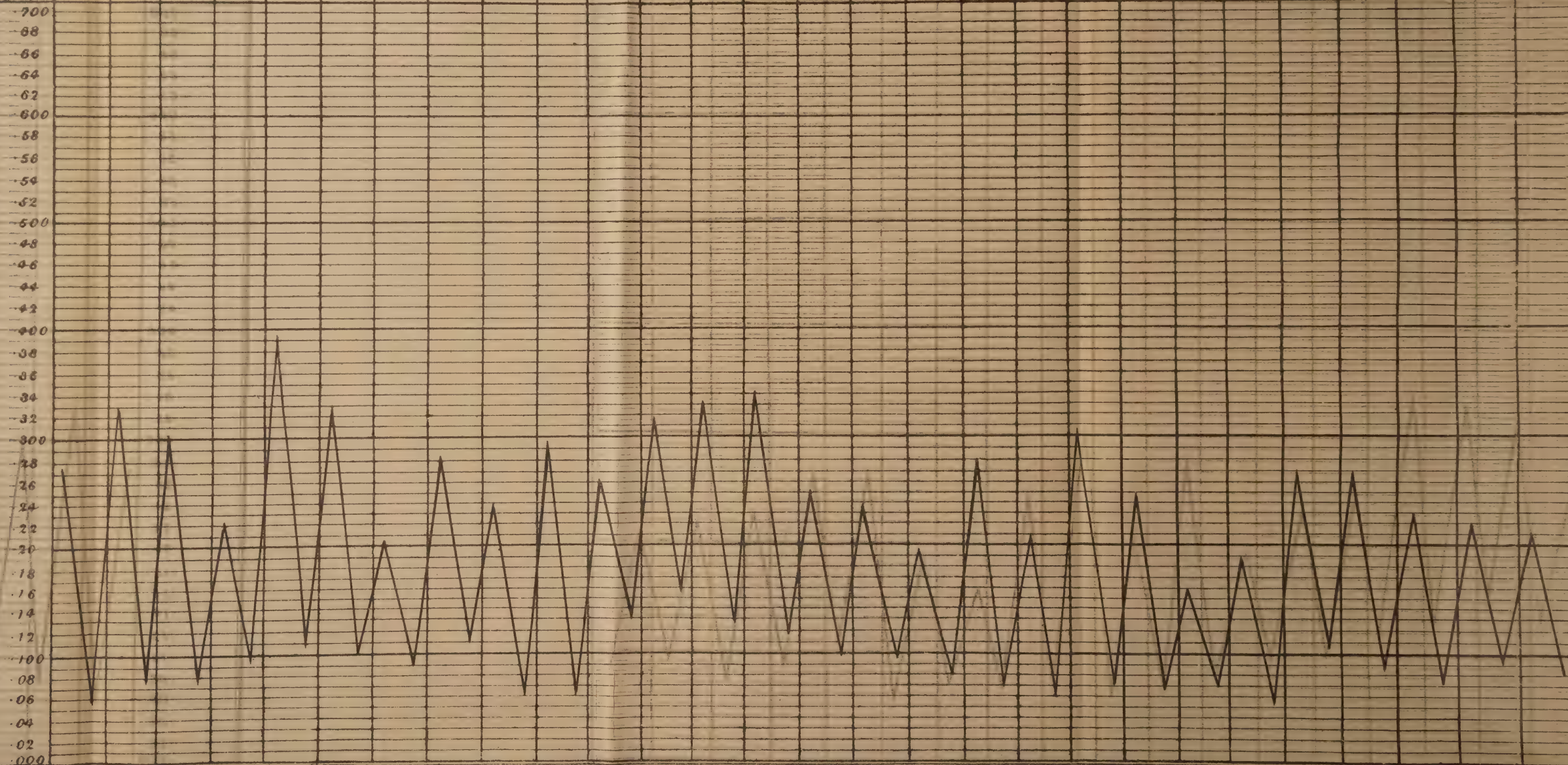
# MAXIMUM & MINIMUM PROPORTION OF ORGANIC MATTER IN RIVER LEA WATER.

(\*B)

Elements of  
Organic Matter  
in Parts per  
100,000

1868 1869 1870 1871 1872 1873 1874 1875 1876 1877 1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895

700  
68  
66  
64  
62  
600  
58  
56  
54  
52  
500  
48  
46  
44  
42  
400  
38  
36  
34  
32  
300  
28  
26  
24  
22  
20  
18  
16  
14  
12  
100  
08  
06  
04  
02  
000





this respect, it equalled the East London Company's deep-well water and slightly surpassed that of the Colne Valley Company. Lastly, the East London Company's water derived from the Lea was, on the average, somewhat superior to any of the Thames-derived waters.

The following table exhibits the maximum amount of organic matter in the waters supplied from the Thames and Lea during the years 1868 to 1895 inclusive, the average of the samples from each source in the month of greatest impurity being taken for comparison:—

## MAXIMUM AMOUNT OF ORGANIC MATTER.

THAMES.			LEA.		
Year.	Elements of organic matter in parts per 100,000.	Months in which maximum pollution occurred.	Year.	Elements of organic matter in parts per 100,000.	Months in which maximum pollution occurred.
1868	·45	January.	1868	·27	February.
1869	·60	February.	1869	·33	February.
1870	·42	January.	1870	·30	January.
1871	·52	October.	1871	·22	February.
1872	·48	January & December.	1872	·39	December.
1873	·46	January.	1873	·33	January.
1874	·37	March.	1874	·21	March.
1875	·49	November.	1875	·28	November.
1876	·44	December.	1876	·24	March.
1877	·40	January.	1877	·30	January.
1878	·36	December.	1878	·26	June.
1879	·38	February.	1879	·33	July.
1880	·42	October.	1880	·33	February.
1881	·34	February.	1881	·34	February.
1882	·37	November.	1882	·26	December.
1883	·32	January.	1883	·24	December.
1884	·27	February.	1884	·20	March.
1885	·35	November.	1885	·28	December.
1886	·30	December.	1886	·21	February.
1887	·34	January.	1887	·31	January.
1888	·30	December.	1888	·25	December.
1889	·29	January.	1889	·16	March.
1890	·27	January.	1890	·19	January.
1891	·43	October.	1891	·27	November.
1892	·35	December.	1892	·27	December.
1893	·37	February.	1893	·23	March.
1894	·42	November.	1894	·22	November.
1895	·34	November.	1895	·22	December.

It is thus evident that the comparatively large amount of organic contamination in the Thames-derived water noted in 1894 was not repeated last year, whilst the maximum organic matter in the Lea was the same as in 1894, which was the smallest recorded since 1890.

The variations in the proportions of organic matter in the several supplies are exhibited graphically in the accompanying diagrams (A. & B.), in which the maximum and minimum proportions of organic matter present each year on the average, in each of the three classes of waters since 1868 are registered.

Tables F. and G., which record the proportions of ammonia and of nitrogen as nitrates and nitrites in the various waters, require no explanation.

In Table H. is given the amount of combined nitrogen, both mineral and organic, found in each of the waters. This total amount is of importance, inasmuch as, after making a small correction for the combined nitrogen present in average rain-water, it sums up the evidence of the nitrogenous organic matters which gained access to the water in the past, as well as of those which were still present at the time the analysis was made. In river and surface water generally, this total combined nitrogen undergoes a very appreciable reduction during the warmer months of the year, in consequence of the vegetable life which then abounds in such water. On this account, therefore, the total amount of combined nitrogen found in the river waters in winter can alone be regarded as bearing any relationship to the amount of nitrogenous matters which the waters have received.

The deep-well waters, on the other hand, are not subject to the influence of vegetable life, and the amount of total combined nitrogen is, therefore, equally indicative at all times of the year.

Hence, in the following table, the average proportion of total combined nitrogen in the case of the Thames and Lea is given for the months of January, February, March, October, November, and December only; whilst, in the case of the deep-wells it is calculated for the whole year:—

Year.	Thames.	Lea.	Deep-Wells.
1886	•319	•336	•355
1887	•307	•352	•365
1888	•304	•322	•358
1889	•311	•358	•438
1890	•280	•295	•371
1891	•217	•247	•287
1892	•292	•332	•271
1893	•281	•314	•276
1894	•303	•319	•293
1895	•319	•319	•295

A comparison of these numbers shows that the total combined nitrogen in the Thames water was higher in 1895 than in any year since 1886; whilst, in the Lea, the average amount of this element observed in 1895 was exactly the same as that found in 1894. Of the deep-well waters, that of the Kent Company showed a marked decrease, whilst the waters of the Colne Valley and East London Companies and of the Tottenham Local Board of Health all showed a slight increase, the average in the four deep-well waters being somewhat higher than in any year since 1890.



Table I. exhibits the amount of chlorine present in each of the waters, and indicates that, on no occasion, has brackish or tidal water gained access to the Companies' reservoirs. The amount of chlorine in the Thames-derived water was, on the average, slightly less than in the year 1894, whilst the water delivered by the New River Company contained slightly more, and that supplied by the East London Company slightly less in 1895 than in the previous year. Of the deep-well waters, that delivered by the Kent Company contained slightly more and that sent out by the Colne Valley Company slightly less, whilst the East London and Tottenham waters contained exactly the same proportion in 1895 as in the previous year.

Table K. gives the hardness of the various waters. The term "hardness" is used to denote the proportion of carbonate of lime, or its equivalent of other soap-destroying substances, present in 100,000 parts, by weight, of the water. The variations in hardness for the several descriptions of water during recent years are given in the following Table:—

Year.	Thames.	Lea.	Kent.	Colne Valley.	Tottenham.	East London Deep Well.
1885	18°·7	20°·0	27°·9	4°·8	20°·4	—
1886	19°·2	20°·3	29°·4	4°·5	21°·3	—
1887	19°·3	20°·8	29°·9	5°·7	20°·5	—
1888	20°·0	22°·0	30°·2	7°·5	22°·5	—
1889	20°·2	22°·1	29°·9	7°·0	24°·6	—
1890	20°·4	22°·0	29°·7	7°·9	23°·8	—
1891	20°·3	21°·8	29°·4	8°·9	24°·4	18°·9
1892	20°·8	21°·9	28°·4	7°·5	23°·9	19°·2
1893	19°·6	21°·4	28°·3	7°·1	23°·1	20°·2
1894	18°·8	20°·1	25°·5	7°·4	23°·5	19°·4
1895	19°·4	21°·1	26°·7	7°·3	23°·1	20°·4

The waters derived from the Thames and Lea, and the deep-wells of the Kent and East London Companies were all appreciably harder than in 1894; whilst the deep-well water of the Tottenham Local Board of Health and of the Colne Valley Company was slightly softer. The hardness of the metropolitan water supply is almost entirely due to the presence of bi-carbonate of lime in solution, which can be readily removed by treating the water with lime, as is so successfully done by the Colne Valley Company. Thus the water pumped from the chalk by the Colne Valley Company is, originally, of about the same degree of hardness as the Kent Company's supply; but by treatment with lime before delivery, its hardness is reduced to about one-fourth of its original amount. The hardness of the river-water supplies can be reduced in the same manner. This mode of softening would appear to be the most economical, unless it can be shown that less than one-eightieth of the total supply is used for washing, for it entails only about one-eightieth of the expense incurred by the private consumer in the shape of additional soap.

Lastly, Table L. records the averages, for the past year, of each determination already referred to, and thus gives a general survey of the thermal and chemical character of the water delivered by each Company during the year 1895.

In the following table are recorded the results of my observations respecting the freedom from turbidity or otherwise of the various waters; and, for the purpose of comparison, the results of my first observations in 1863 are also included:—

COMPANIES OR LOCAL AUTHORITIES.	Number of occasions when clear and transparent.		Number of occasions when slightly turbid.		Number of occasions when turbid.		Number of occasions when very turbid.	
	1868.	1895.	1868.	1895.	1868.	1895.	1868.	1895.
THAMES.								
Chelsea - - - -	7	12	2	0	1	0	2	0
West Middlesex - - -	12	12	0	0	0	0	0	0
Southwark - - - -	1	12	5	0	4	0	2	0
Grand Junction - - -	9	12	2	0	1	0	0	0
Lambeth - - - -	6	12	1	0	2	0	3	0
LEA.								
New River - - - -	10	12	2	0	0	0	0	0
East London - - - -	3	12	8	0	1	0	0	0
DEEP WELLS.								
Kent - - - -	8	12	3	0	1	0	0	0
Colne Valley - - - -	-	12	-	0	-	0	-	0
Tottenham Local Board of Health - - - -	-	9	-	3	-	0	-	8
East London - - - -	-	8	-	4	-	0	-	8

This table exhibits the great improvement which the Water Companies who draw their supplies from rivers have effected in filtration since I first began these examinations for turbidity in 1868. In that year, seven samples were so turbid as to be highly repulsive in appearance, nine samples were turbid, and no less than 20 slightly turbid, whereas during the year 1895 not one of the samples of filtered water was turbid in the slightest degree. On the other hand, sixteen samples of deep-well water, which does not require filtration, were slightly turbid owing, in all probability, to disturbance by the pumping machinery.

TABLE A.

TEMPERATURE (in Centigrade degrees) of the METROPOLITAN WATERS, as delivered from the different Companies' Mains.

COMPANIES OR LOCAL AUTHORITIES.	1895.												Mean.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
THAMES.													
(Unfiltered Water)	1.5	1.1	3.5	12.3	18.1	18.9	18.7	18.5	15.0	11.5	8.6	4.8	11.0
Chelsea	3.8	1.1	3.8	10.8	14.8	16.6	18.6	17.7	16.7	12.3	9.2	6.4	11.0
West Middlesex	3.0	1.4	4.3	9.7	11.4	14.2	16.1	16.0	15.7	10.7	8.8	6.3	9.8
Southwark	3.7	3.8	3.8	13.5	14.2	17.7	18.5	18.7	18.0	11.8	9.5	6.3	11.6
Grand Junction	4.1	0.9	6.3	11.2	14.7	17.6	19.5	19.5	18.4	12.5	10.1	6.8	11.8
Lambeth	3.3	0.8	5.7	12.5	15.7	17.4	19.4	18.5	16.7	12.1	9.2	6.3	11.1
LEA.													
(Unfiltered Water)	3.3	1.4	8.0	12.8	11.2	16.6	16.7	16.3	15.2	9.8	7.3	5.2	10.3
New River	2.5	1.4	6.1	11.3	13.8	17.4	17.7	17.4	16.1	11.3	8.8	5.5	10.3
(Unfiltered Water)	1.8	0.1	6.2	12.5	10.0	17.5	17.4	17.5	16.5	10.0	7.6	3.7	10.1
East London	1.6	2.0	5.7	11.6	13.2	17.5	17.5	17.5	17.1	11.0	9.3	3.6	10.6
DEEP WELLS.													
Kent	12.4	9.9	11.3	12.4	13.8	12.8	13.2	13.2	12.7	11.9	11.7	13.2	12.4

TABLE B.

WEIGHT of SOLID MATTERS in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.	1895.												Mean.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
THAMES.													
(Unfiltered Water)	33.83	33.40	32.28	28.52	26.96	28.80	27.40	26.40	27.32	26.88	30.44	33.88	29.68
Chelsea	31.14	34.28	29.20	28.90	20.64	25.92	24.80	23.60	24.28	25.56	29.40	32.10	28.24
West Middlesex	31.50	35.16	29.50	27.54	25.38	25.86	24.90	23.52	24.42	26.56	32.16	33.36	28.57
Southwark	34.40	34.44	30.18	26.68	25.58	27.58	24.70	24.64	26.06	26.64	32.14	33.78	28.88
Grand Junction	35.42	34.22	30.08	27.74	26.96	26.80	24.56	24.38	25.12	26.88	29.56	33.16	28.74
Lambeth	34.80	34.50	31.90	27.90	26.42	27.60	25.74	24.72	25.72	27.06	31.44	32.76	29.21
LEA.													
(Unfiltered Water)	33.80	33.92	36.32	28.60	31.32	28.92	32.20	30.76	32.00	33.12	33.80	31.20	32.41
New River	33.90	34.76	33.44	28.10	27.12	30.26	28.22	28.64	30.44	30.68	33.00	33.24	30.98
(Unfiltered Water)	39.52	39.16	39.60	32.40	32.92	29.00	27.60	29.50	31.92	34.04	37.64	38.08	34.28
East London	39.98	40.42	35.20	32.44	28.96	29.36	27.20	28.42	26.86	30.46	34.94	35.74	32.50
DEEP WELLS.													
Kent	43.44	40.10	39.52	38.82	39.96	36.30	33.64	38.06	39.36	38.00	38.24	39.70	39.18
Colne Valley	21.14	17.90	18.56	19.18	18.16	20.60	16.26	18.88	15.68	16.88	18.14	18.92	18.36
Tottenham	41.40	39.00	41.32	41.12	41.06	40.92	41.06	44.28	41.78	42.56	42.04	42.48	41.59
East London	28.43	29.76	33.16	41.30	37.96	38.53	38.33	39.80	33.78	38.76	29.04	29.04	35.67

TABLE C.

ORGANIC CARBON in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.	1895.												Mean.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
THAMES.													
(Unfiltered Water)	.202	.135	.235	.173	.233	.192	.195	.220	.172	.237	.545	.254	.233
Chelsea	.228	.156	.108	.168	.141	.096	.095	.105	.110	.117	.193	.253	.148
West Middlesex	.221	.140	.146	.119	.131	.103	.099	.119	.112	.141	.308	.271	.159
Southwark	.204	.142	.203	.134	.130	.107	.095	.115	.111	.142	.372	.232	.166
Grand Junction	.205	.114	.156	.134	.122	.104	.099	.106	.107	.147	.274	.200	.147
Lambeth	.197	.121	.214	.148	.120	.119	.100	.112	.102	.151	.364	.244	.166
LEA.													
(Unfiltered Water)	.089	.086	.166	.095	.123	.111	.098	.112	.081	.097	.216	.113	.116
New River	.126	.084	.083	.082	.057	.053	.055	.054	.032	.063	.137	.169	.083
(Unfiltered Water)	.113	.153	.261	.194	.221	.182	.155	.224	.172	.162	.340	.222	.199
East London	.232	.167	.172	.132	.113	.081	.081	.095	.108	.106	.226	.221	.145
DEEP WELLS.													
Kent	.037	.040	.033	.023	.024	.024	.026	.021	.030	.040	.027	.034	.030
Colne Valley	.092	.080	.110	.070	.079	.105	.064	.065	.056	.057	.080	.143	.083
Tottenham	.067	.065	.035	.065	.063	.065	.057	.088	.063	.043	.054	.072	.061
East London	.091	.102	.078	.082	.074	.075	.053	.076	.064	.080	.077	.117	.081



TABLE D.  
ORGANIC NITROGEN in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.		1895.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	THAMES.													
	(Unfiltered Water)	·038	·021	·048	·031	·024	·026	·040	·037	·038	·037	·071	·054	·039
	Chelsea -	·031	·024	·014	·014	·025	·015	·016	·016	·013	·018	·024	·042	·021
	West Middlesex -	·021	·020	·020	·018	·026	·013	·014	·014	·014	·021	·039	·032	·021
	Southwark -	·027	·020	·027	·016	·020	·013	·013	·013	·011	·018	·034	·032	·020
	Grand Junction -	·020	·017	·029	·012	·018	·011	·016	·013	·013	·017	·039	·026	·019
	Lambeth -	·034	·015	·030	·016	·015	·015	·012	·013	·015	·016	·039	·032	·021
	LEA.													
	(Unfiltered Water)	·023	·020	·029	·024	·014	·020	·025	·017	·020	·017	·033	·019	·022
	New River -	·012	·010	·011	·011	·014	·009	·008	·010	·006	·008	·023	·022	·012
Outer Circle.	(Unfiltered Water)	·043	·038	·042	·030	·027	·031	·031	·040	·033	·041	·052	·048	·038
	East London -	·026	·034	·024	·021	·020	·014	·012	·012	·013	·020	·028	·036	·022
	DEEP WELLS.													
	Kent -	·007	·005	·005	·005	·008	·006	·007	·006	·006	·006	·007	·006	·006
	Colne Valley -	·023	·014	·020	·017	·020	·017	·016	·011	·012	·016	·018	·017	·017
	Tottenham -	·011	·008	·009	·012	·008	·007	·015	·017	·007	·008	·016	·007	·010
	East London -	·015	·022	·010	·010	·022	·019	·014	·015	·011	·017	·013	·019	·016

TABLE E.  
PROPORTIONAL AMOUNT of ORGANIC ELEMENTS, that in the KENT COMPANY'S WATER during the Nine Years ending December 1876 being taken as 1.

COMPANIES OR LOCAL AUTHORITIES.		1895.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	THAMES.													
	(Unfiltered Water)	4·1	2·6	4·8	3·5	4·4	3·7	4·0	4·4	3·6	4·6	10·4	5·1	4·6
	Chelsea -	4·4	3·1	2·1	3·1	2·8	1·9	1·9	2·1	2·3	3·7	5·0	2·9	2·9
	West Middlesex -	4·1	2·7	2·8	2·3	2·7	2·0	1·9	2·3	2·1	2·7	5·9	5·1	3·1
	Southwark -	3·9	2·7	3·9	2·5	2·5	2·0	1·8	2·2	2·1	2·7	6·9	4·5	3·1
	Grand Junction -	3·8	2·2	3·1	2·5	2·4	1·9	2·0	2·0	2·0	2·8	5·3	3·8	2·8
	Lambeth -	3·9	2·3	4·1	2·8	2·3	2·2	1·9	2·1	2·0	2·8	6·8	4·6	3·2
	LEA.													
	(Unfiltered Water)	1·9	1·8	3·3	2·0	2·3	2·2	2·1	2·2	1·7	1·9	4·2	2·2	2·3
	New River -	2·3	1·6	1·6	1·6	1·2	1·1	1·1	1·1	0·6	1·2	2·7	3·2	1·6
Outer Circle.	(Unfiltered Water)	4·0	3·2	5·1	3·8	4·2	3·6	3·2	4·5	3·5	3·4	6·6	4·6	4·1
	East London -	4·4	3·4	3·3	2·6	2·3	1·6	1·6	1·8	2·1	2·1	4·3	4·4	2·8
	DEEP WELLS.													
	Kent -	0·7	0·8	0·7	0·5	0·5	0·5	0·6	0·5	0·6	0·8	0·6	0·7	0·6
	Colne Valley -	1·9	1·6	2·2	1·5	1·7	2·1	1·4	1·3	1·2	1·2	1·7	2·7	1·7
	Tottenham -	1·3	1·2	1·3	1·3	1·2	1·2	1·2	1·8	1·2	0·9	1·2	1·3	1·3
	East London -	1·8	2·1	1·5	1·6	1·6	1·5	1·1	1·5	1·3	1·6	1·5	2·3	1·6

TABLE F.  
AMMONIA in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.		1895.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean
Inner Circle.	THAMES.													
	(Unfiltered Water)	·016	·008	·010	·006	·008	·009	·008	·017	·006	·006	·006	·008	·009
	Chelsea -	0	0	0	0	0	0	0	0	0	0	0	0	0
	West Middlesex -	0	0	0	0	0	0	0	0	0	0	0	0	0
	Southwark -	0	0	0	0	0	0	0	0	0	0	0	0	0
	Grand Junction -	0	0	0	0	0	0	0	0	0	0	0	0	0
	Lambeth -	0	0	0	0	0	0	0	0	0	0	0	0	0
	LEA.													
	(Unfiltered Water)	·001	·003	·005	·007	·006	·013	·006	·008	·005	·004	·005	·007	·006
	New River -	0	0	0	0	0	0	0	0	0	0	0	0	0
Outer Circle.	(Unfiltered Water)	·024	·026	·008	·010	·045	·006	·007	·021	·008	·006	·024	·025	·018
	East London -	0	·004	0	0	0	0	0	0	0	0	0	0	0
	DEEP WELLS.													
	Kent -	0	0	0	0	0	0	0	0	0	0	0	0	0
	Colne Valley -	·052	·064	·020	·038	·068	·084	·024	·036	·072	·058	·028	·042	·048
	Tottenham -	·056	·048	·068	·012	·054	·062	·064	·070	0	·063	·066	·060	·053
	East London -	0	0	·058	0	·040	·042	·062	·062	·054	·070	·020	·020	·036

TABLE G.  
NITROGEN as NITRATES and NITRITES in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.	1895.												Mean.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
THAMES.													
(Unfiltered Water)	·323	·364	·286	·253	·188	·193	·144	·132	·179	·203	·230	·296	·233
Chelsea - - -	·293	·384	·302	·220	·183	·170	·134	·141	·143	·180	·226	·283	·219
West Middlesex -	·318	·423	·281	·210	·185	·180	·153	·139	·162	·199	·262	·284	·233
Southwark - -	·336	·409	·275	·203	·187	·187	·151	·152	·163	·195	·253	·298	·234
Grand Junction -	·349	·430	·276	·217	·202	·184	·143	·152	·166	·209	·243	·296	·239
Lambeth - - -	·354	·398	·283	·217	·190	·208	·126	·153	·171	·201	·261	·294	·238
LEA.													
(Unfiltered Water)	·375	·371	·273	·255	·166	·186	·178	·169	·206	·248	·282	·304	·251
New River - -	·374	·284	·295	·234	·178	·212	·153	·159	·183	·226	·246	·285	·236
(Unfiltered Water)	·309	·404	·357	·223	·280	·167	·114	·097	·194	·264	·308	·333	·250
East London - -	·303	·455	·353	·217	·199	·195	·131	·143	·095	·195	·283	·272	·237
DEEP WELLS.													
Kent - - - -	·484	·514	·478	·491	·432	·406	·459	·468	·466	·470	·468	·432	·466
Colne Valley -	·472	·526	·546	·511	·477	·480	·466	·508	·484	·466	·524	·508	·497
Tottenham - -	·026	·026	·044	·062	·011	trace	·038	·022	·063	·055	·021	·032	·033
East London - -	trace	trace	0	·060	0	trace	·043	·007	·028	0	0	0	·012

TABLE H.  
TOTAL combined NITROGEN in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.	1895.												Mean.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
THAMES.													
(Unfiltered Water)	·374	·392	·342	·280	·219	·231	·190	·183	·222	·245	·306	·357	·279
Chelsea - - -	·324	·408	·316	·234	·208	·185	·150	·157	·156	·198	·250	·325	·243
West Middlesex -	·339	·443	·301	·228	·211	·143	·167	·153	·176	·220	·301	·316	·254
Southwark - -	·363	·429	·302	·219	·207	·200	·164	·165	·174	·213	·287	·330	·254
Grand Junction -	·369	·447	·305	·229	·220	·195	·159	·165	·179	·226	·282	·322	·268
Lambeth - - -	·383	·413	·313	·233	·205	·223	·138	·166	·186	·217	·300	·326	·259
LEA.													
(Unfiltered Water)	·399	·394	·306	·285	·185	·217	·208	·192	·230	·268	·319	·329	·278
New River - -	·383	·294	·306	·245	·192	·221	·161	·169	·189	·234	·269	·307	·248
(Unfiltered Water)	·366	·463	·406	·261	·294	·213	·151	·154	·234	·310	·380	·402	·303
East London - -	·329	·492	·377	·268	·219	·209	·143	·160	·108	·215	·311	·308	·262
DEEP WELLS.													
Kent - - - -	·491	·519	·483	·496	·460	·412	·466	·574	·472	·476	·475	·438	·480
Colne Valley -	·538	·533	·582	·559	·553	·566	·502	·549	·555	·530	·565	·580	·554
Tottenham - -	·083	·074	·109	·084	·063	·069	·106	·037	·070	·115	·091	·088	·087
East London - -	·015	·022	·058	·070	·055	·054	·108	·073	·083	·075	·030	·035	·057

TABLE I.  
CHLORINE in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.	1895.												Mean.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
THAMES.													
(Unfiltered Water)	1·8	1·7	1·8	1·7	1·7	1·7	1·6	1·8	1·8	1·9	1·9	1·7	1·8
Chelsea - - -	1·7	1·7	1·6	1·8	1·7	1·7	1·7	1·8	1·8	1·8	1·9	1·8	1·8
West Middlesex -	1·7	1·7	1·7	1·7	1·6	1·7	1·7	1·9	1·8	1·8	1·9	1·8	1·8
Southwark - -	1·8	1·7	1·8	1·7	1·6	1·7	1·6	1·8	1·8	1·8	1·9	1·8	1·8
Grand Junction -	1·8	1·7	1·8	1·7	1·7	1·7	1·7	1·8	1·8	1·8	1·9	1·9	1·8
Lambeth - - -	1·8	1·7	1·8	1·7	1·6	1·8	1·7	1·9	1·8	1·8	1·9	1·8	1·8
LEA.													
(Unfiltered Water)	1·7	1·8	2·0	1·8	1·8	1·7	1·8	1·8	1·8	1·8	1·7	1·7	1·8
New River - -	1·7	2·0	1·9	1·9	1·8	1·8	1·8	1·8	1·7	1·8	1·7	1·8	1·8
(Unfiltered Water)	2·1	2·0	2·1	2·0	2·0	1·8	1·9	1·9	2·0	2·0	2·0	2·1	2·0
East London - -	2·1	2·1	1·9	2·0	2·0	1·9	2·0	2·0	2·0	1·9	2·0	2·1	2·0
DEEP WELLS.													
Kent - - - -	2·5	2·4	2·3	2·3	2·5	2·3	2·3	2·2	2·3	2·2	2·2	2·4	2·3
Colne Valley -	2·2	2·1	2·3	2·2	2·4	2·3	2·1	2·3	2·1	2·1	2·2	2·2	2·2
Tottenham - -	2·9	2·7	2·8	2·8	2·9	2·9	2·9	3·1	2·9	2·9	2·9	2·9	2·9
East London - -	2·1	2·0	1·6	2·1	2·4	2·5	2·6	2·6	2·6	2·5	2·0	2·1	2·3

TABLE K.

DEGREES of HARDNESS (1 deg. = 1 part of carbonate of lime, or its equivalent,) in 100,000 parts of the WATERS.

COMPANIES OR LOCAL AUTHORITIES.		1895.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean.
Inner Circle.	THAMES.													
	(Unfiltered Water)	21.5	21.8	20.0	19.1	17.7	19.1	18.0	16.9	18.9	19.1	18.9	23.0	19.5
	Chelsea - - -	21.8	21.8	19.4	19.1	17.4	17.7	17.1	16.6	17.7	18.9	19.7	22.1	19.1
	West Middlesex - -	22.1	22.7	19.4	18.3	17.1	17.7	17.1	16.6	18.3	19.4	20.0	22.7	19.3
	Southwark - - -	22.4	23.0	20.0	18.6	17.4	19.1	17.1	17.7	19.1	19.4	20.9	23.3	19.8
	Grand Junction - -	22.4	22.4	20.6	18.6	18.0	18.3	17.1	17.4	18.9	19.4	20.0	22.7	19.6
	Lambeth - - -	22.4	22.7	21.2	18.3	18.0	19.1	17.7	17.4	19.1	19.7	20.3	22.4	19.9
	LEA.													
	(Unfiltered Water)	23.3	22.4	20.9	18.6	13.6	20.0	17.7	19.9	21.5	22.1	23.0	24.5	21.0
	New River - - -	22.4	22.7	21.8	18.9	18.0	18.6	18.9	19.7	21.5	22.4	22.4	23.3	20.9
Outer Circle.	(Unfiltered Water)	25.4	26.0	23.9	21.1	19.4	20.0	18.3	19.1	22.7	24.2	24.8	26.6	22.6
	East London - - -	25.4	26.6	22.7	20.6	19.1	19.4	16.9	18.3	18.6	21.8	23.0	24.2	21.4
	DEEP WELLS.													
	Kent - - -	27.2	26.8	25.7	25.4	26.3	26.6	25.7	26.3	28.4	28.1	26.9	27.5	26.7
	Colne Valley - - -	8.6	6.7	6.3	8.3	6.3	8.9	5.7	7.9	6.4	7.4	7.4	8.0	7.3
	Tottenham - - -	24.2	23.6	23.3	20.6	21.2	22.1	22.1	22.1	23.6	26.0	23.9	24.2	23.1
	East London - - -	19.1	20.0	22.1	20.0	19.1	20.6	20.6	21.8	20.6	21.2	20.3	19.4	20.4

TABLE L.

AVERAGES FOR 1895.

The numbers in the Table relate to 100,000 parts of each Water.

COMPANIES OR LOCAL AUTHORITIES.		Temperature in Centigrade Degrees.	Total Solid Matters.	Organic Carbon.	Organic Nitrogen.	Ammonia.	Nitrogen, as Nitrates and Nitrites.	Total combined Nitrogen.	Chlorine.	Total Hardness.	Proportional Amount of Organic Matter in the Kent Company's Water during the 9 years ending Dec. 1896 being taken as 1.
Inner Circle.	THAMES.	°									
	(Unfiltered Water)	11.0	29.68	.233	.039	.009	.233	.279	1.8	19.5	4.6
	Chelsea - - -	11.0	28.24	.148	.021	0	.219	.243	1.8	19.1	2.9
	West Middlesex - -	9.7	28.57	.159	.021	0	.233	.254	1.8	19.3	3.1
	Southwark - - -	11.6	28.88	.166	.020	0	.234	.254	1.8	19.3	3.1
	Grand Junction - -	11.8	28.74	.147	.019	0	.239	.258	1.8	19.0	2.6
	Lambeth - - -	11.5	29.21	.166	.021	0	.238	.259	1.8	19.9	3.2
	LEA.										
	(Unfiltered Water)	10.3	32.41	.116	.022	.006	.251	.278	1.8	21.0	2.3
	New River - - -	10.8	30.98	.083	.012	0	.236	.248	1.8	20.9	1.6
Outer Circle.	(Unfiltered Water)	10.1	34.28	.199	.038	.018	.250	.303	2.0	22.6	4.1
	East London - - -	10.6	32.50	.145	.022	0	.237	.262	2.0	21.4	2.8
	DEEP WELLS.										
	Kent - - -	12.4	39.18	.030	.006	0	.466	.480	2.3	26.7	0.6
	Colne Valley - - -	—	18.36	.083	.017	.049	.497	.554	2.2	7.3	1.7
	Tottenham - - -	—	41.59	.061	.010	.052	.033	.087	2.9	23.1	1.3
	East London - - -	—	35.67	.081	.016	.036	.012	.057	2.3	20.4	1.6

NOTE.—The numbers in these tables may be converted into grains per imperial gallon by multiplying them by 7, and then moving the decimal point one place to the left.



## BACTERIOSCOPIC EXAMINATION.

The samples of water submitted to this examination were collected at the works of the respective Companies immediately after the water left the filters, and before it was pumped into the distributing mains; and, whenever possible, separate observations were made upon the effluent of each individual filter at the time in use, so as to ascertain which filter, if any, was not doing its work efficiently. It is of little use examining, bacterioscopically, the filtered water as delivered in London, because this is a mixture of the effluents from all the filters, and moreover the multiplication of ordinary river, or harmless microbes, is so rapid, that the number is generally increased many fold between the filtration works and the standpipes in London. By the examination of the water as it issues from the filters, the utmost freedom from microbes, or maximum degree of sterility, of each sample of water is determined. This utmost freedom from bacterial life, after all sources of contamination have been passed, is obviously the most important moment in the history of the water; for, the smaller the number of microbes found in a given volume at that moment, the less is the probability of pathogenic organisms being present; and, although the non-pathogenic may afterwards multiply indefinitely, this is of no consequence in the initial absence of the pathogenic. In this determination of maximum sterility, it is, of course, of the utmost importance that multiplication should be prevented during the few hours which, in the absence of suitable arrangements at the works of the different Companies, must necessarily elapse before the samples can be submitted to cultivation in my laboratory. This is secured by immediately sealing, hermetically, the glass tubes containing the samples and then packing them in ice. At the freezing point of water, microbes either do not multiply at all, or do so with extreme slowness.

Although the collection of samples for microbe cultivation on the works of the seven different Water Companies drawing their supplies from rivers, these works being situated at wide distances apart, entails great additional labour, which can only be performed by an expert in bacteriology, it is the only trustworthy method by which the efficient filtration and comparative bacterial purity of the Metropolitan waters can be ascertained. Whenever this examination proves any filter to be working unsatisfactorily, the attention of the engineer in charge is at once directed to the circumstance.

Of collateral interest also is the contemporaneous bacterial condition of the Thames and Lea at the intakes of the Companies drawing from these rivers, and I have therefore submitted to bacterioscopic examination samples of the unfiltered water passing the intakes of the various Companies at the time the samples were collected. In addition, I have frequently examined the water which is pumped by some of the Companies from the gravel flanking the Thames at Hampton, and also samples of Thames and Lea water after more or less prolonged storage in subsidence reservoirs, but before filtration. I have undertaken this heavy additional work at the request of the Associated Metropolitan Water Companies, who have unreservedly placed their plant at my disposition for this purpose, and have afforded me every facility, at present in their power, for carrying on this important inquiry.

It is very desirable, however, that small bacteriological laboratories should be established at Hampton, for the examination of the Thames-derived waters, and at Green Lanes and Lea Bridge for the examination of the very important supplies drawn from the Lea by the New River and East London Companies.

The deep-well water of the Kent Company does not require filtration, and the samples for microbe cultivation were therefore taken from the water as it was discharged from the pumps.

In connection with this work my best thanks are due to my assistant, Mr. W. T. Burgess, F.I.C., for his very valuable help in the prosecution of this investigation.

The results of these examinations made during the year 1895 are contained in the following tables; and, in order that the conditions, as regards storage and filtration, under which the seven Companies drawing from rivers work, I have added, in each case, the amount of storage before filtration, the depth of sand on the filter beds, and the rate of filtration. These additional data are taken from the monthly reports of the Water Examiner:—

TABLE No. 1.—MICROBE DETERMINATIONS IN UNFILTERED WATERS.

SOURCE OF SAMPLE.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Thames at Hampton - -	15°	16,520	0°	—	5°	36,560	12°	—	
Ditto after storage for 13 days (Chelsea Company).	4°	50,040	0°	—	3°	5,400	10°	—	
Ditto after storage for 6·3 days (West Middlesex Company).	—	780	—	—	4°	1,620	11°	500	
Southwark Company's gravel water.	—	—	—	—	3°	120	13°	100	
Grand Junction after short storage.	—	—	—	—	—	4,700	11°	180	
Thames after storage for 6·4 days (Lambeth Company).	—	—	—	—	—	3,000	—	720	
Lea at Angel Road (East London Company).	1°	23,400	0°	50,860	6°	40,800	12°	4,880	
Lea after storage for 15 days (East London Company) -	1°	5,540	0°	37,200	4°	17,160	11°	1,540	
New River Cut just before entering reservoirs.	1°	3,980	0°	—	4°	17,160	11°	1,540	
New River Cut just after leaving reservoirs.	3°	6,400	1°	14,440	8°	11,800	12°	1,980	
	1°	4,680	—	—	—	—	—	—	
	3°	10,520	1°	14,580	6°	6,560	12°	700	
	3°	—	—	—	—	—	—	—	
SOURCE OF SAMPLE.	MAY.		JUNE.		JULY.		AUGUST.		
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Thames at Hampton - -	18°	2,127	18°	3,140	18°	1,320	18°	1,100	
Ditto after storage for 13 days (Chelsea Company).	16°	240	17°	880	19°	800	18°	560	
Ditto after storage for 6·3 days (West Middlesex Company).	16°	440	17°	260	18°	880	17°	187	
Southwark Company's gravel water.	12°	160	14°	370	—	—	—	—	
Grand Junction after short storage.	16°	420	—	—	19°	140	18°	160	
Thames after storage for 6·4 days (Lambeth Company).	—	180	—	340	19°	340	19°	460	
Lea at Angel Road (East London Company).	10°	9,440	17°	8,320	17°	2,100	17°	6,520	
Lea after storage for 15 days (East London Company).	13°	940	18°	940	17°	1,720	17°	1,100	
New River Cut just before entering reservoirs.	11°	2,620	16°	1,920	16°	1,240	16°	880	
New River Cut just after leaving reservoirs.	14°	480	16°	400	17°	460	16°	260	
SOURCE OF SAMPLE.	SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		Mean. Microbes per c.c.
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Thames at Hampton - -	15°	1,480	11°	2,480	8°	29,260	4°	14,630	13,646
Ditto after storage for 13 days (Chelsea Company).	16°	220	12°	1,240	9°	500	5°	680	3,177
Ditto after storage for 6·3 days (West Middlesex Company).	15°	200	11°	220	8°	2,900	5°	2,510	971
Southwark Company's gravel water.	—	—	—	—	—	—	—	—	188
Grand Junction after short storage.	16°	240	12°	340	8°	840	6°	690	917
Thames after storage for 6·4 days (Lambeth Company).	16°	340	12°	480	9°	1,160	5°	800	—
Lea at Angel Road (East London Company).	—	—	—	—	8°	13,140	5°	9,680	3,520
Lea after storage for 15 days (East London Company).	16°	2,480	10°	1,820	7°	10,040	3°	9,240	14,075
New River Cut just before entering reservoirs.	10°	3,420	10°	640	8°	4,080	4°	1,860	6,280
New River Cut just after leaving reservoirs.	15°	1,700	9°	1,120	7°	5,800	5°	4,270	4,514
	14°	380	10°	340	8°	1,520	4°	1,810	2,924



These results of the bacterioscopic examination of the unfiltered waters used by the Metropolitan Companies are, again, both interesting and instructive. They demonstrate, in the first place, how very much the bacterial quality of the water may differ from its chemical quality. Thus, in chemical composition, the water pumped from the gravel near the banks of the Thames does not differ materially from the Thames water itself, and it is generally turbid; but, whilst the raw Thames water contained during the year 1895, on the average, 13,646 microbes per c.c., the water abstracted from the natural gravel beds by the Southwark Company contained, on the average, only 188 per c.c.

In the second place the table shows that even the small amount of storage in the two subsidence reservoirs of the New River Company effects a very considerable bacterial amelioration. But it is remarkable that this effect was suspended when the temperature of the water approached the freezing point. On the average of the whole year, whilst the water arriving at Green Lanes contained 5,999 microbes per c.c., the same water, after passing through these two reservoirs, contained only 2,924 per c.c. This table also shows the great bacterial amelioration which the Lea water, taken in at Angel Road, experiences by a storage of 15 days in the reservoirs of the East London Company. For, whilst the average number of microbes at the intake was 14,075, the average number passing from the storage reservoirs to the filters was only 6,540 per c.c. In like manner, the storage of the Chelsea Company for nearly 13 days, and that of the Lambeth Company for six days effect, as shown in the table, a very great reduction in the number of microbes; thus, in March, when the raw Thames water contained 36,560 microbes per c.c., the stored water of the Chelsea Company contained only 5,400. In November, when the river contained 29,260 microbes per c.c., the stored water of the Chelsea Company contained only 500 and that of the Lambeth Company only 13,140 per c.c. Taking the average of the whole year the Thames contained 13,646, the Chelsea stored water 3,177, and the Lambeth stored water 3,520 microbes per c.c. But here, again, the best results were obtained, as a rule, in warm weather.

In the third place, the table exhibits the very great variations which occur in the raw river waters in the course of the year. These variations have been attributed at different times to changes of temperature, or exposure to varying amounts of sunshine, low temperature appearing to favour either the multiplication or preservation of microbes, whilst exposure to sunshine has been shown, by Dr. Marshall Ward, to be very inimical to bacterial life. I have proved, however, that in rivers like the Thames, these influences have little or no effect upon microbial life, the number of microbes in a given volume of Thames water being practically governed by the rainfall; that is to say, by the volume of the stream.

With regard to the effect of sunshine upon bacterial life, the interesting observations of Dr. Marshall Ward leave no doubt that sunlight is a powerful germicide; but it is obvious that its potency in this respect must be greatly diminished, if not entirely annulled, when the solar rays have passed through a stratum of water even of comparatively small thickness before they reach the living organisms. By a series of ingeniously contrived experiments, Mr. Burgess has demonstrated the correctness of this view. A sterile bottle was half filled with Thames water and violently agitated for five minutes to insure equal distribution of the organisms. Immediately afterwards a number of sterile glass tubes were partially filled with this water and sealed hermetically. Three of these tubes were immediately packed in ice and the remainder were attached in duplicate, at different distances apart, to a light wire frame which was then suspended vertically in the river. The experiments were made near the Grand Junction Water Company's intake at a place favourable for the sun's rays to fall on the river without any obstruction. The river was at the time in a very clear condition and contained but little suspended matter, whilst the day was fine, although clouds obscured the sun occasionally. The tubes were exposed to light in the river for  $4\frac{1}{2}$  hours (from 10.30 a.m. to 3 p.m. on 15th May 1895). At the end of this time the tubes were



packed in ice for transport to the laboratory, where the cultivation was started immediately. The colonies were counted on the fourth day, and yielded the following numbers:—

				No. of Colonies per c.c.
Thames water	packed in ice	immediately after collection	-	2,127
"	"	after exposure to sunlight for $4\frac{1}{2}$ hours at surface of river	-	1,140
"	"	"	sunlight for $4\frac{1}{2}$ hours at 6 inches below surface of river	1,940
"	"	"	sunlight for $4\frac{1}{2}$ hours at 1 foot below surface of river	2,150
"	"	"	sunlight for $4\frac{1}{2}$ hours at 2 feet below surface of river	2,430
"	"	"	sunlight for $4\frac{1}{2}$ hours at 3 feet below surface of river	2,440

These experiments show that, on 15th May, the germicidal effect of sunlight on Thames microbes was nil at depths of 1 foot and upwards from the surface of the water. It cannot, therefore, excite surprise that the effect of sunshine upon bacterial life in the great mass of Thames water should be nearly, if not quite, imperceptible.

The following table and diagram (No. 5) show the effect of rainfall upon the number of microbes very conclusively. They compare the volume of water in the river, as gauged at Teddington Weir, with the number of microbes found in the raw Thames water at Hampton on the same day. In this diagram the numbers representing the flow of the river in millions of gallons per 24 hours and the number of microbes per c.c. of water both run from the bottom of the diagram upwards and are represented by the ordinates, whilst the abscissæ denote the months in which the several determinations were made. For the gaugings of the Thames at Teddington Weir, I am indebted to the kindness of Mr. C. J. More, the engineer to the Thames Conservancy Board; but in the diagram 100 millions of gallons are added to the daily flow, this being, approximately, the volume of water taken out of the river by the water companies above Teddington Weir. Comparing the two columns of numbers in the table and the two curves on the diagram, we find a remarkably close relation between these numbers and curves respectively. Thus, when in January, there was an increased daily flow from 2,086 millions of gallons to 5,436 millions, there was also an increase of bacteria from 16,520 per c.c. to 50,040 per c.c. And, when in February, the flow of the river was reduced to 2,445 millions of gallons, the number of microbes per c.c. came down to 34,220; whilst in March, when the volume of water in the river remained nearly the same, but slightly higher, the microbes also varied only between 34,220 and 36,560. Again, in April, when the daily flow of the river declined to 826 millions of gallons, the number of microbes per c.c. fell to 4,160. In the following months of May to October inclusive both the river and microbes remained low; but, in November, the daily flow of water over Teddington Weir increased to 2,144 millions of gallons, and the microbes to 29,260 per c.c., whilst in the following month of December, both the rate of flow and the number of microbes were reduced by about 50 per cent. This year's observations, therefore, confirmed the conclusion arrived at in my last report, based upon similar observations carried on during the three preceding years, that the number of microbes in a given volume of Thames water is determined mainly by the rate of flow of the river, or, in other words, by the rainfall. And what is true of the Thames, in this respect, is doubtless true also approximately of the Lea and other rivers:—

## COMPARISON of NUMBER of MICROBES with VOLUME of THAMES at TEDDINGTON WEIR.

DATE.	Flow of River in Gallons daily.	No. of Microbes per c.c.	DATE.	Flow of River in Gallons daily.	No. of Microbes per c.c.
January 4th - -	2,086,000,000	16,520	July 1st - -	279,600,000	1,320
" 21st - -	5,436,000,000	50,040	August 12th - -	348,800,000	1,100
February 4th - -	2,445,000,000	34,220	September 23rd - -	210,400,000	1,480
March 11th - -	2,487,000,000	36,560	October 16th - -	350,900,000	2,480
April 19th - -	826,000,000	4,160	November 18th - -	2,144,000,000	29,260
May 15th - -	661,500,000	2,127	December 9th - -	1,121,800,000	14,630
June 1st - -	442,700,000	3,140			

The following tables represent the bacterial condition of the water issuing from the filter beds of the various Metropolitan Companies during the year 1895, comparing them with the raw material dealt with by these Companies.

*The Chelsea Company.*

Amount of storage	-	-	-	13·0 days.
Average thickness of sand on filters	-	-	-	4 feet.
Average rate of filtration per square foot per hour	-	-	-	1·75 gallon.
Maximum percentage of microbes removed	-	-	-	99·93
Minimum percentage of microbes removed	-	-	-	93·94
Average percentage of microbes removed	-	-	-	98·78

TABLE 2.—MICROBE DETERMINATIONS in the CHELSEA COMPANY'S WATER.

SOURCE OF SAMPLE.	JANUARY.		FEBRUARY.		MARCH.		APRIL.	
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.
Thames unfiltered at Hamp- ton.	3·1	33,280*	0·8	34,220	5·5	36,560	12·3	4,160
„ after storage for 13 days.	2·5	780	0·5	26,800	3·7	5,400	10·7	520
„ after filtration	2·3	76	0·5	232	2·8	80	10·7	28

SOURCE OF SAMPLE.	MAY.		JUNE.		JULY.		AUGUST.	
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.
Thames unfiltered at Hamp- ton.	18·1	2,127	18·9	3,140	18·7	1,320	18·5	1,100
„ after storage for 13 days.	16·7	240	17·7	880	19·4	300	18·0	560
„ after filtration	16·5	48	17·7	8	19·4	80	18·6	32

SOURCE OF SAMPLE.	SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		Mean Microbes per c.c.
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Thames unfiltered at Hamp- ton.	15·0	1,480	11·5	2,480	8·6	29,260	4·8	14,630	13,646
„ after storage for 13 days.	16·3	220	12·3	1,240	9·0	500	5·3	680	3,177
„ after filtration	16·2	12	12·5	4	9·6	20	5·0	22	54

\* Mean of two observations, see Table No. 1.

This table shows that, except in February, the Chelsea Company delivered, during the whole year, water of a high degree of bacterial purity, rivalling in some cases, deep-well water in this respect. In the month of November, when the Thames at the intake contained no less than 29,260 microbes per c.c., this Company's water, which was being pumped from the general filter wells into the supply mains, contained only 20.

*West Middlesex Company.*

Amount of storage	-	-	-	-	6.3 days.
Average thickness of sand on filters	-	-	-	-	2.6 feet.
Average rate of filtration per square foot per hour	-	-	-	-	1.39 gallon.
Maximum percentage of microbes removed	-	-	-	-	99.96
Minimum percentage of microbes removed	-	-	-	-	97.88
Average percentage of microbes removed	-	-	-	-	99.29

TABLE 3.—MICROBE DETERMINATIONS in the WEST MIDDLESEX COMPANY'S WATER.

SOURCE OF SAMPLE.	JANUARY.		FEBRUARY.		MARCH.		APRIL.	
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbs per c.c.	Temp. C.	Microbes per c.c.
Thames unfiltered at Hamp- ton.	3.1	33,280	0.8	34,220	5.5	33,560	12.3	4,160
„ after storage for 6.3 days.	—	—	—	—	4.3	1,620	11.3	500
„ after filtration	{ 3.7 2.5	{ 61 1,236	0.4	286	4.2	296	11.0	16

SOURCE OF SAMPLE.	MAY.		JUNE.		JULY.		AUGUST.	
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.
Thames unfiltered at Hamp- ton.	18.1	2,127	18.9	3,140	18.7	1,320	18.5	1,100
„ after storage for 6.3 days.	16.3	440	17.8	200	18.7	880	17.8	180
„ after filtration	16.2	16	17.9	12	19.2	28	17.7	8

SOURCE OF SAMPLE.	SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		Mean Microbes per c.c.
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Thames unfiltered at Hamp- ton.	15.0	1,480	11.5	2,480	8.6	29,260	4.8	14,680	13,646
„ after storage for 6.3 days.	15.3	200	11.0	220	8.3	2,900	5.5	2,510	971
„ after filtration	15.2	8	11.0	24	8.2	12	5.5	28	115

Except in the months of January, February, and March, when intense cold prevailed, this Company delivered water of a high degree of organic purity, rivalling that of the deep-well water of the Kent Company. In November, the number of microbes was only 12 per c.c., when the raw water at the intake contained 29,260.



*Southwark and Vauxhall Company.*

Amount of storage	-	-	-	3·8 days.
Average thickness of sand on filters	-	-	-	2·5 feet.
Average rate of filtration per square foot per hour	-	-	-	1·5 gallon.
Maximum percentage of microbes removed	-	-	-	99·84
Minimum percentage of microbes removed	-	-	-	74·18
Average percentage of microbes removed	-	-	-	96·73

TABLE 4.—MICROBE DETERMINATIONS in the SOUTHWARK COMPANY'S WATER.

SOURCE OF SAMPLE.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Thames unfiltered at Hamp- ton, Southwark Co's.—	3·1	33,280	0·8	34,220	5·5	36,560	12·3	4,160	
Gravel water	—	—	—	—	3·9	120	13·2	100	
No. 3 filter	—	—	—	—	—	—	—	—	
No. 4 „	{ 2·5 4·7	{ 1,236 560	0·5	6,260	4·9	60	11·2	32	
No. 7 „	—	—	0·4	380	—	—	—	—	
No. 8 „	{ 1·4 4·3	{ 192 190	—	—	5·0	172	11·4	132	
No. 9 „	—	—	—	—	—	—	—	—	
SOURCE OF SAMPLE.	MAY.		JUNE.		JULY.		AUGUST.		
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Thames unfiltered at Hamp- ton, Southwark Co's.—	18·1	2,127	18·9	3,140	18·7	1,320	18·5	1,100	
Gravel water	12·5	160	14·5	370	—	—	—	—	
No. 3 filter	—	—	—	—	—	—	—	—	
No. 4 „	18·2	12	19·2	44	18·9	4	17·6	8	
No. 7 „	—	—	—	—	—	—	—	—	
No. 8 „	18·5	52	19·5	116	—	—	17·7	284	
No. 9 „	—	—	—	—	—	—	—	—	
SOURCE OF SAMPLE.	SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		Mean Microbes per c.c.
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Thames unfiltered at Hamp- ton, Southwark Co's.—	15·0	1,480	11·5	2,480	8·6	23,260	4·8	14,630	13,646
Gravel water	—	—	—	—	—	—	—	—	188
No. 3 filter	—	—	11·7	12	—	—	—	—	12
No. 4 „	14·4	4	—	—	8·7	56	4·5	56	676
No. 7 „	—	—	—	—	—	—	—	—	380
No. 8 „	—	—	11·7	84	9·2	312	7·3	116	162
No. 9 „	14·3	104	—	—	—	—	—	—	104

The filtration plants of the Chelsea and West Middlesex Companies deliver the filtered water into general receptacles or wells, from which the samples for bacterioscopic examination were drawn, and there was consequently no opportunity at these works, for obtaining separate samples from each of the filter beds. At the Southwark Company's works, however, I have been able to obtain samples from several of the separate filters, and the above table, giving the results of the examination of these samples, shows several cases in which effective bacterial filtration was not attained. Thus, No. 8 filter only delivered two satisfactory samples during the whole year. Looking only at the average results of each filter, this record is a bad one, for it was only No. 3 filter which delivered water containing fewer than 100 microbes per c. c., and one sample only of this water was examined; but an inspection of the separate numbers in the table shows that this would not be a fair statement of the case. Thus No. 4 filter only infringed the bacterial standard twice during the year, and this occurred when the raw Thames water was, bacterially very impure; whilst No. 9 filter only infringed very slightly.

*Grand Junction Company.*

Amount of storage	-	-	-	-	3.5 days.
Average thickness of sand on filters	-	-	-	-	1.9 foot.
Average rate of filtration per square foot per hour	-	-	-	-	1.75 gallons.
Maximum percentage of microbes removed	-	-	-	-	99.91
Minimum percentage of microbes removed	-	-	-	-	76.37
Average percentage of microbes removed	-	-	-	-	97.57

TABLE No. 5.—MICROBE DETERMINATION in the GRAND JUNCTION COMPANY'S WATER.

SOURCE OF SAMPLE.	JANUARY.		FEBRUARY.		MARCH.		APRIL.	
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.
Thames unfiltered at Hampton.	3.1	53,280	0.8	34,220	5.5	36,560	12.3	4,160
Grand Junction after short storage.	—	—	—	—	—	4,700	11.5	180
Grand Junction general well at Hampton	1.5	176	1.1	4,944	5.2	996	12.5	72
Grand Junction general well at Kew Bridge.	4.3	894	0.5	52	5.4	220	11.3	96
Grand Junction south well at Kew Bridge.	3.5	48	0.8	116	—	—	11.6	36
	3.7	44	0.5	44				
			1.1	36				
SOURCE OF SAMPLE.	MAY.		JUNE.		JULY.		AUGUST.	
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.
Thames unfiltered at Hampton.	18.1	2,127	18.9	3,140	18.7	1,320	18.5	1,100
Grand Junction after short storage.	16.9	420	—	—	19.5	140	18.8	160
Grand Junction general well at Hampton.	17.9	48	18.8	76	19.8	340	19.0	460
Grand Junction general well at Kew Bridge.	14.5	196	17.9	108	19.3	312	18.5	52
Grand Junction south well at Kew Bridge.	14.8	16	18.0	8	19.5	44	18.4	28
					19.7	44	18.8	24

SOURCE OF SAMPLE.	SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		Mean Microbes per c.c.
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Thames unfiltered at Hampton.	15°0	1,480	11°5	2,480	8°6	29,260	4°8	14,630	13,646
Grand Junction after short storage -	{ 16°4 16°3 }	{ 240 340 }	12°5	340	{ 8°9 9°0 }	{ 840 1,160 }	{ 6°3 5°0 }	{ 690 860 }	917
Grand Junction general well at Hampton -	15°1	28	12°1	16	8°5	476	5°3	64	635
Grand Junction general well at Kew Bridge.	15°7	12	12°0	44	8°8	32	5°9	24	78
Grand Junction south well at Kew Bridge.	16°3	16	12°0	4	9°0	28	6°3	16	25

The small amount of storage possessed by this Company renders it difficult for them at all times to maintain efficient bacterial filtration, and six out of the thirteen samples collected at the Hampton works during the year contained an excess of microbes or their spores over 100 per c.c.; whilst four out of the 25 samples collected at the Kew works also contained an abnormal number of microbes. Most of the abnormal results occurred when the raw river water was bacterially in a bad condition, and during severe frost.

### Lambeth Company.

Amount of storage	-	-	-	6·0 days.
Average thickness of sand on filters	-	-	-	2·8 feet.
Average rate of filtration per square foot per hour	-	-	-	2·08 gallon.
Maximum percentage of microbes removed	-	-	-	99·97
Minimum percentage of microbes removed	-	-	-	96·55
Average percentage of microbes removed	-	-	-	98·67

TABLE No. 6.—MICROBE DETERMINATIONS in the LAMBETH COMPANY'S WATER.

SOURCE OF SAMPLE.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Thames unfiltered at Hamp- ton.	°		°		°		°		
Thames after storage for 6·4 days.	3·1	33,220	0·8	34,220	5·5	36,560	12·3	4,160	
Lambeth Company's supply -	—	—	—	—	—	3,000	—	720	
	2·5	408	1·0	1,180	4·4	252	11·2	44	
SOURCE OF SAMPLE.	MAY.		JUNE.		JULY.		AUGUST.		
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Thames unfiltered at Hamp- ton.	°		°		°		°		
Thames after storage for 6·4 days.	18·1	2,127	18·9	3,140	18·7	1,320	18·5	1,100	
Lambeth Company's supply -	—	180	—	340	—	—	18·3	620	
	16·5	28	17·5	20	19·3	28	18·3	24	
SOURCE OF SAMPLE.	SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		Mean Microbes per c.c.
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Thames unfiltered at Hamp- ton.	°		°		°		°		
Thames after storage for 6·4 days.	15·0	1,480	11·5	2,480	8·6	29,260	4·8	14,630	
Lambeth Company's supply -	—	—	12·2	480	8·9	13,140	5·5	9,680	
	15·5	20	12·3	12	9·0	8	5·2	28	
								171	



This table shows that, in the first three months of the year, the number of microbes largely exceeded 100 per c.c. This occurred during the continuance of the severe frost which seriously affected the filtration plants of all the Companies. Except in these months, the water delivered by the Lambeth Company was of most excellent bacterial quality; and, in November, when the raw Thames water contained 29,260 microbes per c.c. the filtered water delivered by this Company contained only 8.

*New River Company.*

Average amount of storage	-	-	-	4.5 days.
Average thickness of sand on filters	-	-	-	1.8 foot.
Average rate of filtration per square foot per hour	-	-	-	2.29 gallons.
Maximum percentage of microbes removed	-	-	-	99.79
Minimum percentage of microbes removed	-	-	-	91.09
Average percentage of microbes removed	-	-	-	98.18

TABLE NO. 7.—MICROBE DETERMINATIONS in the NEW RIVER COMPANY'S WATER.

SOURCE OF SAMPLE.	JANUARY.		FEBRUARY.		MARCH.		APRIL.	
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.
New River cut before entering subsidence reservoirs.	3.3	6,400	1.4	14,440	8.0	11,800	12.8	1,980
New River cut after leaving subsidence reservoirs	1.3	4,680	1.4	14,580	6.3	6,560	12.2	700
New River Company's—	3.7	10,520						
General filter well	1.5	654	1.2	220	5.7	84	12.3	28
	3.3	208						
No. 1 filter well	3.3	70	—	—	—	—	11.9	24
No. 2 „	1.4	136	—	—	5.7	56	—	—
No. 4 „	—	—	1.2	160	—	—	—	—
No. 6 „	—	—	—	—	—	—	—	—
No. 7 „	3.4	52	—	—	—	—	—	—
No. 8 „	1.1	570	—	—	5.7	492	11.8	20
No. 9 „	—	—	—	—	—	—	—	—

SOURCE OF SAMPLE.	MAY.		JUNE.		JULY.		AUGUST.	
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.
New River cut before entering subsidence reservoirs.	11.2	2,620	16.6	1,920	16.7	1,240	16.3	880
New River cut after leaving subsidence reservoirs.	14.1	480	16.5	400	17.1	460	16.7	260
New River Company's—								
General filter well	14.2	22	17.0	8	16.9	8	16.3	24
No. 1 filter well	—	—	16.8	4	16.9	8	16.3	4
No. 2 „	—	—	—	—	—	—	—	—
No. 4 „	—	—	—	—	—	—	—	—
No. 6 „	14.2	28	—	—	—	—	—	—
No. 7 „	—	—	18.0	44	18.9	60	—	—
No. 8 „	—	—	—	—	—	—	—	—
No. 9 „	13.5	30	—	—	—	—	—	8

SOURCE OF SAMPLE.	SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		Mean Microbes per c.c.
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
New River cut before entering subsidence reservoirs.	15.2	1,700	9.8	1,120	7.3	5,800	5.2	4,270	4,514
New River cut after leaving subsidence reservoirs.	14.7	380	10.4	340	8.2	1,520	4.5	1,810	2,924
New River Company's— General filter well - -	15.0	36	10.4	8	8.1	32	4.5	60	80
No. 1 filter well - -	—	—	—	—	—	—	—	—	22
No. 2 „ - -	—	—	—	—	—	—	—	—	96
No. 4 „ - -	—	—	—	—	7.6	32	4.5	80	91
No. 6 „ - -	—	—	—	—	8.2	5	—	—	17
No. 7 „ - -	—	—	10.5	8	—	—	—	—	41
No. 8 „ - -	—	—	—	—	—	—	4.3	44	282
No. 9 „ - -	14.9	20	10.4	12	—	—	—	—	18

From this table it is seen that out of 36 samples, seven contained microbes in excess of 100 per c.c. All seven samples were collected in January, February, and March during exceptionally severe frost. On all other occasions the filtered water was bacterially of excellent quality; and in June, when the New River Cut contained 1,920 microbes per c.c., the filtered water in the main well contained only 8, whilst that of No. 1 filter well contained only 4 per c.c.

The Engineer of the New River Company has recently applied to the separate filters a simple but very effective device, whereby the actual rate of filtration can be ascertained at any time by reference to an index.

#### *East London Company.*

Average amount of storage	-	-	-	15.0 days.
Average thickness of sand on filters	-	-	-	2.0 feet.
Average rate of filtration per square foot per hour	-	-	-	1.33 gallon.
Maximum percentage of microbes removed	-	-	-	99.86
Minimum percentage of microbes removed	-	-	-	95.31
Average percentage of microbes removed	-	-	-	99.17

TABLE 8.—MICROBE DETERMINATIONS IN EAST LONDON COMPANY'S WATER.

SOURCE OF SAMPLE.	JANUARY.		FEBRUARY.		MARCH.		APRIL.	
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.
East London— Co's Intake - - -	1.8	23,400	0.1	50,860	6.2	40,800	12.5	4,880
After 15 days storage	1.4 1.7	5,540 3,980	0.2	37,200	4.4	17,160	11.5	1,540
Co's No. 1 Essex Well	1.2 1.9	262 2,240	0.2	5,200	4.0	224	11.5	60
Co's No. 2 Essex Well	1.4 2.3	198 5,120	0.2	2,384	3.7	388	11.5	40
Middlesex Well - -	1.3 2.4	214 2,052	0.2	820	3.7	1,208	11.5	44
No. 11 Bed - - -	1.4	200	—	—	—	—	—	—
No. 12 Bed - - -	1.3	152	—	—	4.5	132	—	—

SOURCE OF SAMPLE.	MAY.		JUNE.		JULY.		AUGUST.	
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.
East London— Co's Intake - - -	10°0	9,440	17°5	8,320	17°4	2,100	17°5	5,520
After 15 days storage -	13°3	940	18°2	940	17°9	1,720	17°2	1,100
Co's No. 1 Essex Well -	12°7	120	17°4	36	17°7	16	16°7	20
Co's No. 2 Essex Well -	13°2	68	17°5	12	16°3	12	16°8	96
Middlesex Well - -	13°6	92	17°5	80	—	—	16°4	16
No. 11 Bed - - -	—	—	—	—	17°7	16	—	—
No. 12 Bed - - -	—	—	—	—	18°3	8	—	—

SOURCE OF SAMPLE.	SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		Mean Microbes per c.c.
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
East London— Co's Intake - - -	16°5	2,480	10°0	1,820	7°6	10,040	3°7	9,240	14,075
After 15 days storage -	16°4	3,420	10°6	640	8°2	4,080	4°6	1,860	6,280
Co's No. 1 Essex Well -	15°8	104	10°0	16	7°9	68	4°6	116	603
Co's No. 2 Essex Well -	16°1	16	—	—	8°0	20	4°7	116	528
Middlesex Well - -	16°1	24	10°0	8	7°6	40	4°7	76	322
No. 11 Bed - - -	—	—	—	—	—	—	—	—	108
No. 12 Bed - - -	—	—	—	—	—	—	—	—	97

This table shows that, during the very severe weather of January, February, and March, this Company's filters were working very badly; but, with these exceptions, the standard of 100 microbes per c.c. was slightly infringed in only four samples out of 27.

The foregoing bacteriological tables demonstrate that the severe frost of January, February, and March seriously disarranged the filters of the seven Companies drawing their supplies from rivers. An abnormal number of microbes per c.c. was found in the filter wells of the West Middlesex, Grand Junction, Southwark, Lambeth, New River, and East London Companies, in each of the three months; but the Chelsea Company infringed the standard in February only. I have endeavoured to discover the more immediate cause of this failure in bacterial filtration during severe frost, but in vain.

As the filters supplying the City of Lawrence, Mass., must be exposed every winter to even more severe cold than that which prevailed in London during the first three months of 1895, it was to be expected that similar difficulties must have been met with there. I therefore communicated with Mr. G. W. Fuller, the official bacteriologist to the Mass. State Board of Health. He informs me, however, that no such abnormal results have ever been observed either in the numerous experimental filters of the Board or in the filters supplying the City of Lawrence; except such as could readily be accounted for otherwise than as arising from the cold. Under date 11th April 1895, Mr. Fuller writes me:—

“Your letter of the 20th of February was duly received, and laid before the State Board of Health at their next regular meeting. By them I am instructed to acknowledge its receipt and to do all in my power to aid you in throwing light upon the peculiar phenomenon which you describe in the London filters. So far as the results of any of our experiments may be of service they shall be placed at your disposal.



"I may begin by saying that we have never observed either in our experimental filters or in the large filter which supplies the City of Lawrence, any bacterial results similar to those which you describe. We have sometimes observed during winter months a marked increase in the number of bacteria in an effluent; but this was always readily explicable by known conditions.

"The data at hand show clearly enough that long continued cold weather alone does not cause a diminution in the efficiency of the sand filter in removing bacteria, provided the other conditions are normal. The principle data are as follows:—

"1. On March 2nd 1892, *B. Typhi Adominalis* were applied in large numbers to filter No. 18 A. when the temperature of the applied water was 37° Fahr., and that of the effluent 39° Fahr. These results were satisfactory, and this filter is of the coarsest material experimented with. (See 1892 report, page 471.)

"2. Somewhat similar experiments were also made with filters of finer materials, and operated at lower rates of filtration, as is shown in the 1892 report, page 475.

"3. Good results were obtained from filter No. 8 A. in the winter of 1893-4 and 1894-5, when the temperature of the water was 32°-34° Fahr. for several months. This is shown clearly by the tables in the 1893 report, pp. 521, 523, and 525. The bacteria in the effluent were carefully studied, and *B. Coli Communis* was not found, although present in high numbers in the river water.

"4. The Lawrence City filter gave satisfactory results during severe cold weather extending over several months, until the heavy coating of ice (24 to 30 inches) interfered with the proper cleaning and scraping (see 1893 report, pp. 538-39) up to Feb 20th.

"5. In addition to this we have the information obtained from the application of *B. Prodigiosus* to filter No. 8 A. during the past four weeks, and since the receipt of your letter. This experiment is on the largest scale yet tried. The temperature of the water has been usually 32°-34° Fahr., rarely 36° Fahr. These results, together with the earlier ones, go to show that, with all other conditions normal, low temperature alone cannot cause a diminution in the efficiency of filtration.

"It is true that we have obtained some poor results in winter when the surface layers of the filters were not frozen, but we know what the cause was in the important cases.

"In the 1893 report pp. 539-40, you will see that the cleaning of portions of the Lawrence City filter was accompanied by the appearance of more bacteria than usual in the effluent. This was caused by the fact that a limited area had to do practically all the work, and the actual rate of filtration probably equalled and exceeded five million gallons per acre daily. We have felt the effect of this treatment during the past winter more than during the preceding winter, and the evidence at hand points to the advisability of covering water filters in this climate. A fair idea of our winter weather is shown by the temperatures in the 1892 report, page 419." The mean temperature in the months of December, January, and February varied in Lawrence from 16°·8 to 26°·1 Fahr.

In Mr. Fuller's opinion therefore, the inefficiency of filtration in winter is due chiefly, if not entirely, to the difficulty of scraping and cleansing the filters when they are covered with a thick coating of ice. My observations of winter filtration in London lead me to the conclusion that there is also another cause at work, viz: the suspended animation of the microbes in ice cold water, which causes them to be helplessly carried through the interstices of the filter; whilst, at higher temperatures, they possess active vitality and cling to the sand near the surface.

An inspection of the bacterial results published in the report of the Mass. Board of Health for 1893 shows conclusively that, from some cause or causes, the Mass. filters allow exceptionally large numbers of microbes to pass through them in frosty weather; and it is obvious that during the continuance of such weather, filtration plants require to be carefully watched. It would, I fear, be impracticable to warm the water on the filters during very cold weather, for to warm one day's supply of 150 millions of gallons through 50° Fahr. would require the expenditure of about 372 tons of coal. It has however, been shown, as described above, by the Chelsea Company, that severe frost is by no means incompatible with very efficient bacterial filtration.



*Kent Company.*

This Company supplies only deep-well water, which is delivered in a clear and bright condition to consumers as it is pumped from the wells. It requires neither storing nor filtration. The water probably always arrives at the wells absolutely free from microbes, the small number per c.c. usually found being doubtless derived from accidental and unavoidable contamination by the pumping machinery. The number per c.c. during the year was generally under 10. The maximum of 44 occurred in July; but in October and December the water being delivered was absolutely sterile, and the mean number of microbes per c.c. for the entire year was only 8 as compared with 15 in the year 1894.

TABLE 9.—MICROBE DETERMINATIONS IN KENT AND EAST LONDON COMPANIES' DEEP WELL WATER.

SOURCE OF SAMPLE.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Kent Company's supply -	11.3	7	11.3	8	11.3	8	11.3	6	
East London Company's well at Lea Bridge.	—	—	—	—	—	—	—	—	
SOURCE OF SAMPLE.	MAY.		JUNE.		JULY.		AUGUST.		
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Kent Company's supply -	11.3	6	11.3	12	11.3	44	11.3	2	
East London Company's well at Lea Bridge.	—	—	11.4	20	11.3	4	11.3	0	
SOURCE OF SAMPLE.	SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		Mean Microbes per c.c.
	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	Temp. C.	Microbes per c.c.	
Kent Company's supply -	11.3	4	11.3	0	11.3	4	11.3	0	8
East London Company's well at Lea Bridge.	—	—	11.3	4	—	—	—	—	7

The above table also contains the results of four examinations of the deep-well water distributed by the East London Company. These samples contained a maximum of 20 microbes per c.c., whilst the sample collected in August was absolutely sterile.

In my last report, I commented in detail on the results of experiments on bacterial filtration carried on for five years by the Mass. State Board of Health. These experiments have, as already stated, been continued, and the results previously obtained confirmed. The filters were worked at rates up to three million gallons per acre daily, which renders the results available for application to public water supplies; indeed, none of the water delivered in London is filtered at so rapid a rate as this. It was found that at these rates, all the disease producing germs which were intentionally, and in large numbers, added to the unfiltered water were substantially removed. The filters were so constructed and arranged as to allow direct comparison of the bacterial purification of the water under different rates of filtration, with sand of different degrees of fineness, with different depths of the same sand, and with intermittent and continuous filtration.

The actual efficiency of these filters was tested by the application of the bacillus of typhoid fever. During the earlier periods of the experiments, very large



numbers of these bacilli and of other species, were applied in single doses to the several filters at different times, and the water issuing from the filters was examined four times daily for several days afterwards. The results so obtained give a thoroughly trustworthy test of the degree of bacterial purification effected by each of the experimental filters, and these are the data which have been largely used by the Mass. State Board of Health in deducing the rules which they consider ought to be observed in water filtration.

Amongst the subjects investigated by means of these experimental filters were:—

1. The effect upon bacterial purification of the rate of filtration of the water.
2. The effect of size of sand grains upon bacterial purification.
3. The effect of depth of material upon bacterial purification.
4. The effect of scraping the filters upon bacterial purification.

The following is a summary of the conclusions drawn from these investigations:—

1. The rate of filtration between half a million and three million gallons per acre per day exercises, practically, no effect on the bacterial purity of the filtered water. It is worthy of note that the rates of filtration practised by the several Water Companies drawing their supplies from the Thames and Lea are as follows:—Chelsea Company 1,830,000, West Middlesex Company 1,359,072, Southwark Company 1,568,160, Grand Junction Company 1,986,336, Lambeth 1,477,688, New River Company 1,881,792, and East London Company 1,393,920. Hence, not one of the London Companies filters at the rate of two million gallons per acre per day, at which rate 99·9 per cent. of the microbes present in the raw water were removed by the Mass. filters.

2. The effect of size of sand was found to be very considerable; and, in confirmation, I find that by the use of finer sand than that employed by the Chelsea Company, the West Middlesex Company is able, with much less storage, to obtain an equal degree of bacterial efficiency.

3. The depth of sand between the limits of 1 and 5 feet exercises no practical effect on bacterial purity, when the rate of filtration is kept within the limits just specified. And this result is quite borne out by my own experience gained in the bacterioscopic examination of the filtered water of the seven Companies supplying the Metropolis from rivers. Thus, the New River Company with 1·8 feet of sand on filters, compares favourably with the Chelsea Company, the sand on whose filters is more than twice that depth. Placed in the order of thickness of sand on their filters, the Metropolitan Companies range as follows:—Chelsea, Lambeth, West Middlesex, Southwark, East London, Grand Junction, and New River. Placed in the order of efficient bacterial filtration, they range as follows:—Chelsea, and West Middlesex equal, New River, Lambeth, East London, Southwark, and Grand Junction.

4. When there is such an accumulation of deposit on the surface of the filter that, for practical purposes, sufficient water cannot be made to pass through it, the surface of the filter has to be scraped, about half an inch of the sand being removed from the surface. After this operation, there is often an increase in the number of bacteria in the filtered water, and it was noted that the increase is greater in shallow than in deep filters, and with high, than with low, rates of filtration; and there is no doubt that the effect of scraping is considerably magnified when coarser descriptions of sand are employed, as is the case in the filters of the London Water Companies. I should like, therefore, to impress upon the engineers of these Companies the desirability of using finer sands than those at present employed.

I am, &c.

E. FRANKLAND.

The Registrar General, &c., &c.,  
Somerset House, W.C.



## FIRES IN LONDON DURING THE YEAR 1895.

Captain J. Sexton Simonds, Chief Officer of the Metropolitan Fire Brigade, reported to the London County Council that the number of fires attended during 1895 was 3633, being 572 more than the number in the preceding year, and exceeding by 1061 the average in the ten years 1885-94. According to this report the lives of 306 persons were seriously endangered, and 91 of these were lost. The numbers of lives lost by fires in London in the four preceding years were 61, 64, 82, and 82 respectively.

The staff of the Metropolitan Fire Brigade at the end of the year was distributed at 57 land engine, 5 floating, 59 hose cart, 11 hose and ladder truck, and 198 escape stations. The number of fire engines at these stations was 144, a decrease of 11 from the number in the previous year; 9 were floating steam engines, 55 land steam engines, and 80 manual engines. The authorised strength of the brigade was 819 of all ranks, including the chief officer, second officer, and the superintendents. The cases of injury occurring in the brigade during the year were 106, against 95, 98, and 115 in the three preceding years.

**Number of Fires and of False Alarms** attended during the Eleven Years 1885-95, and in each Month of 1895.

YEARS AND MONTHS.	TOTAL CALLS.	FALSE ALARMS AND CHIMNEYS.	FIRES.					
			Serious	Slight.	Total.	Per-centages.		
						Serious.	Slight.	
1885 - - -	2851	581	160	2110	2270	7.0	93.0	
1886 - - -	2853	704	151	1998	2149	7.0	93.0	
1887 - - -	3059	696	175	2188	2363	7.4	92.6	
1888 - - -	2693	705	121	1867	1988	6.1	93.9	
1889 - - -	3131	793	153	2185	2338	6.5	93.5	
1890 - - -	3546	991	153	2402	2555	6.0	94.0	
1891 - - -	4164	1272	193	2699	2892	6.7	93.3	
1892 - - -	4449	1303	177	2969	3146	5.6	94.4	
1893 - - -	4824	1414	180	3230	3410	5.3	94.7	
1894 - - -	4111	1050	151	2910	3061	4.9	95.1	
1895 - - -	4845	1212	142	3491	3633	3.9	96.1	
1895. {	January - -	409	102	9	298	307	2.9	97.1
	February - -	448	98	20	330	350	5.7	94.3
	March - - -	360	99	15	246	261	5.7	94.3
	April - - -	346	95	7	244	251	2.8	97.2
	May - - -	421	105	14	302	316	4.4	95.6
	June - - -	406	90	11	305	316	3.5	96.5
	July - - -	456	113	7	336	343	2.0	98.0
	August - - -	427	111	16	300	316	5.1	94.9
	September -	437	107	15	315	330	4.5	95.5
	October - -	361	89	8	264	272	2.9	97.1
	November -	352	93	12	247	259	4.6	95.4
	December -	422	110	8	304	312	2.6	97.4